INDUCTION-LEVEL TRAINING OF DIET FACULTY IN PHYSICAL EDUCATION

The prog

nd in

t

INSTRUCTIONAL MATERIALS

REGIONAL COLLEGE OF EDUCATION
BHUBANESWAR
(National Council of Educational
Research Training)
1992

FOREWORD

Induction level Training Programme for DIET faculty in the area of Physical Education was conducted in Regional College of Education, Bhubaneswar from 20.1.92 to 11.2.92. The participants were drawn from the DIETs located in states like Assam, U.P., M.P., Rajasthan, Punjab and New Delhi. The programme duration spread over 23 days was first of its kind in the chain of such orientation, where external resource faculty were drawn from Govt.Colleges of Education, University Department of Education having specialisation in Physical Education, Department of Health Services including the internal faculty of the RCE, Bhubaneswar and its attached D.M.School.

The programme included 3 cycles of presentation. In cycle-1, the participants were exposed to general thrust areas including the conceptual frame work functions and objectives of DIETs, Inservice Training modalities and thrust areas relevant to elementary education. In the second cycle, the participants were expressed to concepts related to health and Physical education. The 3rd phase emphasized two specific activities through participatory group approach. (a) a perspective planning spreading over 5 years in the area of health and physical education (b) developing minimum levels of learning (MLL) in the area of Health and Physical Education.

Since this is the first programme in its kind in the entire country, an attempt has been made not only to make the objective of the programme spelt out very clearly but also translate the objectives into working parameters both in terms of teacher's role and students learning outcome in the area of Health and Physical Education. It is true that there might have been some limitations in completing the entire quantum of work during 23 days of training, I can share with confidence the contributions made by not only the resource faculty but also the participants who are equally qualified to give clarity, precision to a field which was not explored earlier. Therefore, if any of the readers or functionaries of the DIET would like to suggest any improvement, it would be definitely appreciated if it confines to the broad framework of the specific objective of the DIET background and teacher education programme at the elementary level.

In this connection, I would like to specially record th academic and organisational efforts made Prof.Dr.(Mrs) S. Bhattacharya, the Programme Director and Shri G.C.Dhol, Read in Physical Education. I appreciate the effort of Dr.D.K. Bhattacharya, Reader in Education and Coordinator Extension Services Department in designing this package of learning materials within a short time.

In this attempt, I wish to record my deep sense of appreciation to the MHRD and to the Director, Joint Director NCERT, Head, DTESEES, NCERT for selecting this College for conduction of this programme.

The staff of the Extension Services Department and the academic and administrative staff of the College who have directly or indirectly contributed to the success of this programme deserve my word of appreciation.

Against these liminations, the present volume is being circulated for any comments or suggestions that would lead to its future re-shaping.

Prof.K.C.Panda
Principal

CONTENTS

A. District Institutes of Education and Training; Functions and Structure (Extract from DIET guidelines MHRD, Govt. of India, November,1989 Chapter-2) i

B. Functions and structure of In-service Programmes, Field interaction and Innovation cordination (IFIC) Branch of DIET. v

C. Guidelines for Programmes and activities. vii

General Thrust Area

Modules:

1. DIET-it's structure and functions; IFIC Branch-its functions, Guidelines for IFIC-Prof.K.C.Panda 1

2. Induction Training Programme for IFIC Faculty of the DIET in the Eastern Region. An overview Dr.S.T.V.G.Acharyulu. 11

3(a) Planning of Inservice Education Programmes Dr.D.K.Bhattacharjee 19

3(b) Inservice Modalities - Dr.S.K.Goel 31

4. Micro planning and monitoring progress towards Universalisation of Elementary Education - Dr. D.K. Bhattacharjee 50

5. Evaluation in Inservice Programmes - Dr.P.Das 62

6. Child centred Approach/Activity Based Approach - Dr. S.P. Anand 68

7. Education of First Generation Learning - Dr. S.P. Anand 79

8. Multiple Class Teaching-Prof.S.T.V.G.Acharyulu 91

9. Development of Low-cost/No cost Improvised Teaching Aids - Dr. K.S. Rao 102

10. Institutional Planning - Dr.Saroj Pandey 111

11. Action Research - Dr. S.P. Anand 118

12. Extension Programmes - Dr. S.K.Goel 130

13. Evaluation in Schools - Dr. P.Das 155

14. The School Complex - Dr.A.D.Tiwari 164

15. Clearing House Functions of IFIC on Research & Innovation in Elementary Education - Prof. K.C. Panda 174

16. Minimum Level of Learning - Prof.S.T.V.G. Acharyulu 180

Health and Physical Education Area

Basic Documents:

1. Elementary Teacher Education Curriculum: Teaching of Health and Physical Education. i

2. Physical and Health Education in Schools: Objectives and contents:Primary stage. xix

3. Physical and Health Education in Schools: Objectives and contents:Middle stage. xxviii

4. National Policy on Education 1986: Sports and Physical Education. xxxv

5. Programme of Action - NPE 1986: Youth and Sports xxxvi

Modules:

1. Modern Concept of Physical Education: S.R.Ghosh Prof.S.Bhattacharya 1

2. Minimum Level of Learning for Physical Education- S.R.Ghosh 5

3. Organisation of Recreational Activities - S.C.Rao 8

4. Yoga - B.B. Patnaik 16

5. Physical Fitness and its components- Dr.Godavarish Das 22

6. Primary Health Care:Set up and organisation- Sisir Chandra Parida 28

7. Role of Teachers in Safety Education at Elementary Level - Prof.Shakuntala Bhattacharya 36

8. Physical Education and Games for the visually Handicapped - Dr. S.K.Goel 41

9. Effect of Exercise on Body, Muscles, Respiration and Heart - M.M.Rout 52

10. Evaluation Strategies in Physical and Health Education at Elementary level - Dr.D.K.Bhattacharjee 61

11. Health Education inthe Elementary School and Minimum Levels of Learning - Prof.S.Bhattacharya 78

12. Minimum level of Learning in Health and Physical Education (Group Work) 85

13. Mental Health & Physical Education Curriculum in Schools - Prof.K.C.Panda 90

****

(Extract from DIET Guidelines MHRD, Govt.of India,
Nov. 1989 - Chapter 2)

DISTRICT INSTITUTES OF EDUCATION AND TRAINING: FUNCTIONS AND STRUCTURE

1.1 Functions of a DIET

The context, mission and role of the DIETs have been discussed in the preceding Chapter. Their functions, as spelt out in the POA, have been quoted in Annex 2. These could be re-stated as follows :

1) Training and orientation of the following targe groups :

    i) Elementary school teachers (both pre-service and in-service education).

    ii)

    iii) Instructors and supervisors of Non-formal and Adult Education (induction level and continuing education).

    iv) Members of DBE and Village Education Committees (VECs), Community leaders, youth and other volunteers who wish to work as educational activities.

    v) Resource persons who will conduct suitable programmes for the target groups mentioned at (i) and (iii) above, at centres other than the DIET.

2) Academic and resource support to the elementary and adult education systems in the district in othe ways e.g. by (i) extension activities and interaction with the field, (ii) provision of servic of a resource and learning centre for teachers and instructors, (iii) development of locally relevant materials, teaching aids, valuation

tools etc., and (iv) serving as an evaluation centre for elementary schools and programmes of NFE/AE.

3) Action research and experimentation to deal with specific problems of the district in achieving the objectives in the areas of elementary and adult education.

1.2 Structure of a DIET : Certain general considerations

Looking to the above functions, a DIET would need have staff strength in the following areas:

1) Foundations of Education and Pedagogy.
2) The subjects taught at the Elementary stages: namely
   i) Languages taught at the elementary level the district (these may be two, three or even four depending on the number of languages which are introduced in a State at the elementary stage, and factors like bilingual character of a district)
   ii) Mathematics
   iii) Environmentals Studies-Social Science
   iv) Ehvironmental Studies-Science
   v) Work Experience
   vi) Art Education
   vii) Health and Physical Education
3) Non-Formal Education
4) Adult Education
5) Curriculum, Material Development and Evaluation
6) In-service Programmes, Field Interaction and innovation Coordination
7) Planning and Management
8) Educational Technology

1.3 Organisational structure a DIET : A suggested model

A DIET may have academics in the above specialisms with or without their being organised or grouped into formations like Departments/Branches/Units/Wings. A Branch-wise structure however, seems desirable as it would make for a managable span of control for the Principal, and generally greater operational convenience. While several alternative organisational models could be thought of, on such model is being suggested here not the least for historical reasons, viz., that a similar model w as recommended in the Draft Guidelines according to which the Scheme of DIET's has been implemented since October, 1987. The model now suggested would comprise the following seven academic branch

1) Pre-service Teacher Education Branch (PSTE)- consisting of faculty members in the "Foundations" area as well as in various school subjects (excluding Work Experience).
2) Work Experience (WE) Branch
3) District Resource Unit (DRU) for Adult and Non-Formal Education.
4) In-Service Programmes, Field Interaction and Innovation Coordination (IFIC)Branch.
5) Curriculum, Material Development and Evaluation (CMDE) Branch
6) Educational Technology (ET) Branch
7) Planning and Management (P&M) Branch.

As a general observation, it needs to be immediately clarified that most programmes and activities of, a DIET would involve more than one branches, and the nomencleture of branches given above, indicates principal nodal responsibility, and not total responsibility.

In addition to the above academic branches, there have to be an Administration Section to provide necessary administrative support. Since DIETs would be expected to organise in-service programmes on a large scale, every DIET would need to have separate hostels for men and women. These hostels should be able to meet fully the residential requirements of training programmes for Adult Education/Non-Formal Education personnel, and in-service training programmes for teachers, and should in addition, provide hostel accomodation to as many pre-service trainees as possible, within the financial norms of the Scheme. The DIET would also have a library which would be rich in professional books and journals and a part-time clinic.

Each Branch may be headed by a person who would be generally designated as a Senior Lecturer, with necessary number of lectures to support him, depending on the functions and work-load of the Branch. However, wherever a DIET has fullfledged DRU, its head will be designated as a Vice-Principal instead of Sr.Lecturer.

FUNCTION AND STRUCTURE OF IN-SERVICE PROGRAMMES, FIELD INTERACTION AND INNOVATION COORDINATION (IFIC)BRANCH OF DIET.

The specific functions of DIET are :

1. To assist educational authorities in planning and coordination of inservice education programmes for elementary teachers throughout the district, and to plan and coordinate such programmes held in the DIET, pursuant to this, the Branch would-

(i) identify training needs of elementary teachers in the district, and prepare a perspective plan for meeting such needs,

(ii) prepare an annual calendar of all programmes to be held in the DIET, and

(iii) help concerned authorities in preparing an annual calendar of inservice programmes to be held outside the DIET.

2. To serve as the nodal branch for organising-

(i) all those in-service education programmes for teachers and Head.masters, at the Institute, whose content does not relate exclusively or pre-dominantly to any one Branch i.e. programmes of a relatively general/omnibus nature (e.g. the 'main' programmes referred to in para 3.3.3).

(ii) Orientation programmes for resource persons who would conduct in-service programmes for teachers at other centres in the district (i.e. outside the DIET).

(iii) in-service education programmes for teachers in the distance/distance-cum-contact-modes. (A part on its own, it may also serve as a district level study centre for such programmes which may be organised, say, at the state level. IFIC Branch will serve as the nodal Branch for this purpose as well).

3. To evaluate and monitor the quality and efficacy of in-service programmes held in and outside the DIET, and to strive for their continuous improvement.

4. To maintain a data-base on all persons, except NFE/AE personnel, who undergo training at the institute and to organise follow-up activities pursuant to such training, through correspondence, visits, transmission of printed material, etc.

5. To serve as a reference and resource centres, for teachers who wish to continue their education.

6. To act as the nodal branch for all action research, and field interaction (including extension,) activities of the Institute which would include, inter alia:-

(i) Coordination of in-house action research activities and dissemination of its results.

(ii) Acting as a clearning house for information on results of all studies, research, innovation, etc. in the area of Elementary Education-wherever undertaken.

(iii) Publication of a periodic newwletter and an institute journal to be sent to every elementary school/NFE/AE centre in the district.

(Extract from DIET Guidelines MHRD Govt. of India, Nov. 1989, Chapter, 12).

.....

GUIDELINES FOR PROGRAMMES AND ACTIVITIES

1.1 In-Service Programmes for Elementary Teachers.

1.1.1 Objectives:-

According to the Fifth All India Educational Survey, about 87% of the teachers in the country working at the elementary stage were trained i.e. they had undergone a pre-service training course. However, their coverage under programme of in-service education has so far been extremely limited. A teacher may serve for anything uptl 40 years. During this long period, requirements of his profession change continuously, influenced by changes in policy, priorities, technology, society and the world at large. Continuous in-service education of teachers is necessary to keep them abreast of the changes taking place in their professional environment and to develop their skills and attitudes in the light of their changing role.

The objectives of providing in-service and continuing education to teachers could be summarized as follows:

(i) To develop in every teacher, as far as possible, knowledge skills and attitudes which may be necessary for him to function as a competent professional, and to implement the main components of educational policy, and

(ii) To afford teachers, opportunities of professional growth suited to their individual background, aptitude, talent and choice.

The "main components" referred to in (i) above, in the context of NPE, 1986, as far as elementary teachers are concerned, would be substantially those listed in Sections 1 and 2 of Annex 1.

1.1.2 In-Service Education of Teachers: Formulation of a Feasible Pattern.

Ideally, decisions about ways of providing in-service education to teachers in a cost-effective manner should be taken based on findings of appropriate research, keeping in view the objectives and relevant policy areas referred to in the preceeding paragraph. However, research in this area so far, especially in the context of the NPE, is not quite adequate. It is hoped that the NCTE will examine the matter in depth and promote

GUIDELINES FOR PROGRAMMES AND ACTIVITIES

1.1 In-Service Programmes for Elementary Teachers.

1.1.1 Objectives:-

According to the Fifth All India Educational Survey, about 87% of the teachers in the country working at the elementary stage were trained i.e. they had undergone a pre-service training course. However, their coverage under programme of in-service education has so far been extremely limited. A teacher may serve for anything uptl 40 years. During this long period, requirements of his profession change continuously, influenced by changes in policy, priorities, technology, society and the world at large. Continuous in-service education of teachers is necessary to keep them abreast of the changes taking place in their professional environment and to develop their skills and attitudes in the light of their changing role.

The objectives of providing in-service and continuing education to teachers could be summarized as follows:

(i) To develop in every teacher, as far as possible, knowledge skills and attitudes which may be necessary for him to function as a competent professional; and to implement the main components of educational policy, and

(ii) To afford teachers, opportunities of professional growth suited to their individual background, aptitude, talent and choice.

The "main components" referred to in (i) above, in the context of NPE, 1986, as far as elementary teachers are concerned, would be substantially those listed in Sections 1 and 2 of Annex 1.

1.1.2 In-Service Education of Teachers:Formulation of a Feasible Pattern.

Ideally, decisions about ways of providing in-service education to teachers in a cost-effective manner should be taken based on findings of appropriate research, keeping in view the objectives and relevant policy areas referred to in the preceeding paragraph. However, research in this area so far, especially in the context of the NPE, is not quite adequate. It is hoped that the NCTE will examine the matter in depth and promote appropriate research in this area so that cost-effective patterns of in-service education of teachers could be evolved in a local specific manner. For the present, formulation of a desirable pattern of in-service education has to be attempted on the basis of available expert opinion, and considerations of feasibility. The latter is, in any case, a very important aspect. For example, considerations of training needs and quality may dictate that every teacher should say, annually undergo oneweek training in the contact mode. But in view of the number teachers, logistic problems and constraints of financial institutional and other resources, it may simply not be possible to provide training on such a pattern. There may, therefore, be no alternative but to organise training of a duration and frequency which may be feasible within the available resources, and to tailor its content so as to fit within such restricted duration by devices such as prioritisation, condensation, etc.

The Education Commission had, in its report submitted in June, 1966, recommended that "there is need for the organisation of a large scale, systematic and for the organisation of a large scale, systematic and coordinateddprogramme of in-service education so that every teacher would be able to receive at least two or three months of in-service education in every five years of service". The National Commission on Teachers-I(NCT-I), in its report submitted in March, 1986, had recommended that "attendance at an in-service training course be made mandatory for every teacher at least once in five years", and that the average length of such a course may be two weeks. The NCT-I had also , in addition, recommended a variety of other methods for providing in-service education to teachers. Relevant portions of Chapter VIII ("The Case for In-service Education") of the above report may be seen at Annex.6.

The report of NCT-I pre-dated the NPE, 1986. In view of the ambitious goals of qualitative improvement and universalisation stated in the NPE, a single training course of two weeks, once in five years, may prove quite inadequate to achieve the objectives listed in para 1.1.1. On the other hand, looking to the enormous number of teachers, recommendation of the Education Commission in regard to duration may also be difficult to implement. On balance, a pattern like the following could perhaps be suggested as being desirable and feasible for every teacher to undergo:-

(i) Training in the contact mode of a minimum duration of two weeks (Preferably, three to five weeks) over a five-year cycle-through a single contact programme, or more than one, shorter programmes as may be found feasible and effective;

(ii) Regular professional meetings during the academic session at the school complex/teacher centre level. At these meetings:-

(a) teachers could receive in-service education messages through audio-visual aids and through interaction with resource persons and peer group, and

(b) messages conveyed through contact, audio-visual and other modes could be follow up, validated and reinforced through demonstrations, sharing of experiences, etc.

(iii) Professional support through the print and audio-visual media.

1.1.3 Programmes in the contact mode:Logistic

Some of the issues in this regard would be:-

(i) Training in the contact mode of what total duration would be feasible if it is to be provided to every teacher of the district/ State, with a frequency like once in five years?

(ii) Should the above training be imparted in a single, relatively omnibus course or in several, shorter specialized courses?

While answers to the above questions would vary from district to district and State to State (depending on factors like elementary teacher population, number of untrained/underqualified teachers, available financial institutional and manpower resouces etc), for most districts, the following may possibly turn out to be the most appropriate answer, combining the factors of resource constraint and need for quality and comprehensiveness:-

(i) Duration of training in the contact mode may be two to three weeks.

(ii) For ease of logistics, the above training may be generally provided in a single, relatively omnibus programme once in five years, rather than in more than one, shorter programmes; and

(iii) Since the DIET would be the best-equipped training institution in the district, the course, when conducted in the DIETs, may be of three weeks duration, and when conducted elsewhere in the district, could be of a more condensed nature and of two weeks' duration, if resources do not permit a three week course all over.

In the rest of this document, we shall refer to the above, relatively omnibus quinquennial in-service programme as the 'main' in service programme for elementary teachers.

The suggested duration of three weeks for the ' main' progamme to be conducted in DIETs is not to be taken rigidly. For example, if a target group consists of under-qualified teachers, programme of a longer duration may have to be designed for them. On the other hand, if the elementary teacher population in a district is very high and possibilities of organising programmes at other centres are limited, the 'main' programme even in a DIET may have to be restricted to two weeks, in the interest of wider coverage.

Assuming that two 'main' programmes can go on simultaneously in a DIET at least during vacation months and one programme (with appropriate gap) during the rest of the year, a DIET may be able to conduct an estimated 12-14 'main' programmes in a year. If the average number of participants in such programmes is 40-45, a DIET would be ablve to cover about 500-600 ~~xxxx~~ elementary teachers in a year or about 2500-3000 in a five year cycle. It follows that if the elementary teacher population in a district is over 3,000 and every teacher is to be covered through a 'main' programme once in five years, such programmes would have to be conducted, in addition to the DIET, at an appropriate number of other centres also, in the district. (Examples of 'other' centres where this programme could be conducted, under the DIETs overall guidance, would be other institutions of pre-service/in-service training, higher secondary schools lead schools of school complexes, etc.). If, on the other hand, the elementary teacher population in a district is below, say, 2500, the resources of a full-fledgedDIET would tend to be under-utilized as far as in-service training of elementary teachers is concerned. This is the reason why 2,500 has been taken as a threshold elementary teacher population, below which a [illegible] structure has been suggested for the DIET in para 2.6.3.

Though, logistically, the 'main' programme may become the chief modality as far as training in the contact mode is concerned, the DIET would, at the same time, also have to organise, depending on local circumstances and needs, a number of shorter, theme-specific programmes in areas such as the following:-

(i) Education of first generation learners, including supplementary remedial instruction for them and teaching Classes I and II in tribal langugges for teachers serving in trival areas.

(ii) Education of children with motor handicaps and other mild handicaps.

(iii) Education of the gifted,

(iv) Micro-planning and monitoring progress towards, UPE/UEE,

(v) Courses inthe teaching of individual or groups of school subjects i.e. Languages, Mathematics, Science, Social Sciences, Work Experience, Art Education and Health & Physical Education.

(vi) Educational Technology (especially development of low-cost, improvised teaching aids, and effective use of A.V.aids),

(vii) Minimum level of learning.

(viii) Continuous and comprehensive learner evaluation.

(ix) Diagnostic testing and remedial teaching,

(x) Multi-grade teaching,

(xi) Institutional planning,

(xii) Personality development, value and cultural education,

(xiii) Implementation of revised curricula and use of revised textbooks, etc.

(xiv) Yoga and Physical culture,

(xv) Organisation of extra-curricular ac-tivities.

The choice of such programmes to be conducted in a year, and the duration, content, etc. of each of them would need to be decided locally, keeping in view such guidelines as may be laid down at the national or State level.

Headmasters, Heads of school complexes and officers of Education Department working up to the block level would be another target group for in-service training who, though numerically much smaller, would be extremely important in view of their key role in educational reorganisation. The DIET would also have to conduct appropriate training programmes for them. Efforts may be made to cover members of these target groups with the following frequency:-

Headmasters	: Once every three years
Head of School Complexes	: Once every two years.
Block level officers of Education Dept.	: Annually

1.1 4 In-Service Programmes: Certain General Guidelines .

The following general guidelines would be kept in view in organisation of in-service programmes in the DIET:-

(i) The starting point should be the identification of in-service training needs of elementary school teachers of the district-short-term, medium-term and long-term, and for different groups e.g. primary teachers, upper primary teachers belonging to different disciplines, underqualified teachers, untrained teachers, teachers of minority institutions, teachers serving in tribal areas, teachers belonging to various seniority-brackets, etc.

(ii) Based on the above, a plan should be prepared for a five-year period working out how the above needs can be best met with the available resources. There would be distinct advantages in finalizing this plan immediately after the national and State level Five Year Plan are finalized, so that it takes full account of the policies , priorities and programmes spelt out in the latter. This plan should clearly indicate the extent to which responsibility for in-service training will be shared between the DIET, and the other institutions in the district.

(iii) Based on the above, a calendar of all programmes (training, orientation, workshops, etc.) to be conducted in in a DIET over one academic year, should be prepared by the IFIC Branch at least three months before the commencement of the year. This calendar would, inter-alia, include programmes of the following kinds:-

(a) 'Main' programmes for primary teachers.

(b) 'Main' programmes for upper primary teachers- if necessary, different programmes for teachers of different disciplines e.g. Language, Science Social Studies etc.

(c) 'Main' programmes for headmasters.

(d) Shorter, theme-specific programmes for the above target groups.

(e) Training programmes for heads of school complexes and block Education Officers.

(f) Training programmes for resource persons who would conduct 'main' or other programmes at centres other than DIET.

(g) Induction training programmes for AE/NFE personnel

(h) Annual refresher training programmes for AE/NFE personnel.

(i) Orientation programmes for members of DBE, VECs, community leaders, youth and other educational activists.

(j) Workshops for development of locally relevant curricular units, teaching-learning material, teaching aids, testing and evaluation tools, etc.

(iv) Since the 'main' programmes would form the focus of in-service training activity, certain guidelines for them would be evolved at the national and state levels. Based on these, every DIET would design its own set of 'main' programmes looking to local needs. Such programmes would tend to have a common core, along with other components which would be tailored to meet the specific needs of the individuals district/target group.

(v) The DIET will send its annual calendar of programmes as soon as it is ready, to the District Education Officer (DEO) and managements of non-Government schools. The DEO/Managements will cause teachers to be sponsored for individual programmes, in such a manner that the list of teachers sponsored for a particular programme will reach the DIET at least three months before its commencement. Teachers who have less than three years to go for retirement, and trained teachers, who have joined service less than three years ago, may generally not be sponsored, especially if the elementary teacher population of a district exceeds 3000.

(vi) Intake in a 'main' programme may be kept at 40-45, and 'over-sponsoring' may be done to a suitable extent to take care of last minute changes, drop-outs.

(vii) For every programme to be organised in a DIET, a faculty member will be designated as the Course Director. He would usually be from the Branch which has nodal responsibility for that particular category of programmes.

(viii) As soon as the DIET receives nominations for a programme, it will send to every deputed teacher the following:-

a) A basic outline of the course-its objectives, content and methodology,

b) Relevant printed material,

c) A questionnaire to elicit information about the participant's professional background, strengths, training needs, and expectations, from the course, and

d) Joining instructions.

(ix) The DIET should insist on receipt of the filled out questionnaires at least a month before the commencement of the programme. The information so received should be quickly analysed to ascertain participants' needs profile, and the non-core part of the programme as also the methodology for the 'core' part should be designed accordingly.

(x) Objectives/expected outcomes of every programme should be clearly spelt out in terms of trainees' knowledge and skill levels, and attitudes which it seeks to develop. The programme should be carefully designed so that it actually leads to the expected outcomes.

(xi) In regard to training methodology, statements contained in sub-paras (iv) and (v) of para 3.2.2. would apply. In addition, training inputs which are in the nature of simple information (as opposed to skills or major concepts) may be transmitted largely through printed material sent to trainees in advance, rather than in the face-to-face modality.

(xii) Participants should be treated not merely as trainees but also as resource persons for the programme, and their experiences should be fully utilized to enrich the programme.

(xiii) For every programme, a two-pronged evaluation exercise should be conducted as follows:-

a) Participant Evaluation:

The modality for this should as far as possible be self-evaluation. At the end of every single module, participants may be given a short problem, exercise or test, followed by supply of standard answers so that they could assess their level of learning for themselves. A similar exercise could be conducted at the end of the programme well. The purpose of this whole evaluation process should be diagnostic and remedial. Low performance should not have adverse consequences for the trainee, but should lead to more intensive follow-up in such cases by the DIET. This whole approach—that the evaluation exercise is meant only to professionally help the trainees, and would not adversely affect them in any way should be clearly explained to them so that they cooperate fully, and benefit from it.

b) Programmes and Faculty Evaluation:

Every participant should also be given well designed questionnaire to elicit his assessment and suggestions about the effectiveness of the programme and the faculty associated with it. Feedback so received should be quickly analysed and utilized to improve future programme.

In addition to the above written exercise in evaluation, at least one session on the last day of the programme should be devoted to a free and frank exchanges of views, on the programmes effectiveness and level of participation. In case of programmes of longer than one week's duration, the course Director should also hold informal session with participants at the end of every week in order to get regular feedback.

1.1.5 In-Service Education of Teachers:Other Modalities

Programmes of in-service education in the contact mode have been discussed in the proceeding two paras. However, the contact mode is expensive and has limitation in terms of numerical coverage. As mentioned in para 1.1.4 in district having over 3000 elementary teacher population, DIETs' efforts would have to be supplemented through 'main' programmes organised at other centres as we However, in districts where teacher population is very high/and/or possibility of conducting training programmes at other centres is limited, alternative strategies on the lines indicated below would have to be adopted:-

1. The 'cut-off period' of three years mentioned in sub-para (v) of para 1.1.4 may be increased upto five years.
2. The DIET may aim at covering-through its own 'main' programmes-say, two teachers from every elementary school, of whom one would be the Head Master.
3. A School Complex and/or School-based programme of in-service education may be organised especially for the benefit of teachers who cannot be covered in contact programmes. Teachers trained at the DIET as at (2) above could serve as resource persons in such a programme, besides others e.g. faculty from the DIET and other teacher education institution Higher Secondary Schools, Block Education Officer etc. The DIET and the DEO together would need to work out details of such a programme looking to local circumstances, and the DIET would have to provide full academic and resource support in its implementation.
4. The DIET may also produce and distribute appropriate printed modules and self-learning packages to enable elementary teachers to learn on their own, as well as in School/School-Complex-based manner described above. Operationalising (3) and (4) above would need good deal of innovativeness and careful planning and execution.

5. As a DIET gains experience and competence in conducing in-service education of teachers in the distance mode, it could work towards changing the of the 'main and other

programme from 100% contact to a distance-cum-contact mode. With this, the duration of the 'contact' would get reduced, and greater numerical coverage would become possible. However, such a switch-cover would have considerable academic and organisational implications, which would have to be taken care of.

Even where all elementary teachers of a district can be covered in the contact mode once in five years, modalities indicated at (3) and (4) above would still be useful by way of supplementing training in the contact mode.

1.2 Field Interaction (including Extension) activities.

1.2.1 One of the main shortcomings of existing Elementary Teacher Education Institutions (ETEIs) has been their generally low level of contact with the field i.e. with schools, teachers, NFE/AE Centres and their instructors. This perhaps was partly due to [illegible] of an appropriate culture, and partly due to lack of necessary where-with all in the ETEIs. The NPE and PoA clearly dicate an end to this situation of isolation. Therefore, from the start, a fundamentally different culure will need to be fostered in the DIET so that it maintains the closest possible contact with the field. Activities taken up in pursuance of this may be descsribed as 'Field Interaction' activities and would be one of the chief modalities of providing resource and learning support to elementary schools and AE/NFE Centres. In specific terms, field interaction would have the following main aims:-

(i) Identification of the practical problems being faced in the field so as to devise ways of tackling them.

(ii) Obtaining information about worthwhile experiences, innovations, success scories etc. and

(iii) Provision of academic guidance, advice extension and resource support to the field (including sharing of resources).

For purpose of convenience, field interadition activities may be classified into:-

i) extension work, and ii) other activities.

These are briefly discussed below.

1.2.2 Extension: By "extension" is meant dissemination among educational workers (teachers, instructors etc.) of all information and messages which need to be disseminated for effective implementation of policies, programmes and interventions in various areas of a DIET's concern. Such information/messages could relate, inter-alia, to the following matters:-

i) New Policy decisions, programmes and initiatives
ii) Results of new research studies, experiments and techniques developed, e.g. for improving enrolment, retention, attainment levels, etc.
iii) Any other matters of professional interest to the teacher/instructor.

Dissemination of information as above in the district would be primarily the responsibility of the DIET. One way in which information will be so disseminated would be the in-service education programmes which the DIET would organise. However, as we have seen, the frequency with which a teacher would attend such a programme may be no more than once in five years. It would, therefore be imperative to organise extension work in several other ways so that necessary information and messages reach the grassroots educational workers in a regular and timely manner. Some of these modalities could be:-

(i) Periodic meetings/seminars/conferences of block level functionaries and heads of school complexes so that they could, in turn, disseminate information/messages in monthly meetings of heads of schools/school complexes/teachers/supervisors/instructors. These meetings seminars, etc. would be distinct from training programmes for these functionaries referred to in para 1.1 and 1.1.1 and may be of one, two or three days' duration. Their frequency could be quarterly for block level functionaries and six monthly or annually for heads of school complexes.

(ii) Publication of a newsletter and an institute journal to be sent to every school/NFE Centres/AE Centre in the district. The newsletter may be published quarterly. The institute journal may be published annually tl begin with. Late., as it gets established, it could be brought out bi-annually. The newsletter will contain useful information in capsule form while the journal may publish full-fledged articles, reports, action research papers, etc.

While the publication of newsletter/journal would be the responsibility of the IFIC Branch and its Senior Lecturer may act as editor for both of them, their editorial board may comprise a suitable number of other faculty members as also pre-service trainees of the Institute who may be interested in this work.

(iii) Production of pamphlets, brochures, research abstracts, etc. and their distribution among school complexes/schools/AE and NFE Centres.

(iv) Circulation of video and audio cassettes, slides and various other teaching aids among schools/school complexes/projects and centres of AE/NFE.

(v) A systematic programme of visits by DIET faculty to school complex meetings/individual schools/AE and NFE centres, and of bringing Head Masters/teachers/instructor to the DIET for exposure to new ideas, information and materials.

(Extracts from D I E T Guidelines MHRD, Govt. of India, Nov., 1989, Chapter. 3).

*****

DIET - ITS STRUCTURE AND FUNCTIONS
IFIC BRANCH - ITS FUNCTIONS
GUIDELINE FOR IFIC

Prof. K.C. Panda

Conceptualisation of District Institute of Education and Training (DIET) is an important change in the educational system. This will bring radical transformation in the present system of Elementary Teacher Education i.e., preservice and inservice teacher education for the formal Elementary schools, Continuing education, Action research, Resource Development etc. Once the DIETs are established, substandard institutions will be abolished. More specifically and particularly the DIETs will perform training, resource development, and action research functions, headed by a principal and with supporting academic and non-academic staff.

DIET : Its Structure and Functions

The two missionary role entrusted to DIET, with the background of NPE, 1986, POA, and National Literacy Mission are to (a) provide academic and resource support at the grassroot level for the success of various strategies for achieving excellence in UEE and Adult Education within the framework of a District.

And secondly (b) keep the child-centred approach while formulating teacher training programmes and ensure minimal learning outcomes or competencies.

Hence, in a continum of relevance and programme planning, DIET has to play a pivotal role in bringing excellence to UEE/AE/NFE in the District level while at the sametime keeping a close link with State and Central level organisations in the field of operation. DIET is a part of larger design to achieve the national goals and priorities in education.

The transactional philosophy that would govern the functions of the DIET are : use of learner centred approach organisation of need based programme, use of innovative approaches to teacher preparation, teaching and learning and acting as a single viable resource centre in the District in the years to come emphasising the educational development of special target groups viz., girls and women, SC/ST, minorities handicapped, educationally backward etc., with its accountability linked to District Boards of Education (DBE), and wherever it is not existing or visualised, the SCERTs and SRCs will discharge this function of monitoring and evaluating DIET.

Structure and Functions of Units

Each DIET will have seven Branches or Units.

The DIET will discharge several functions through its own branches but the overall picture would relate to essentially.

a) Elementary school teachers.
b) Headmasters, Heads of School Complexes Administrators
c) Instructors and Supervisors of NFE/AE.
d) Members of DBE, Community members etc.
e) Resource persons in charge of training.

Since a large and dispropationate number of our primary school teachers are outside the circumference of exposure to new curricula content and pedagogical foundations, DIET would strengthen the teacher competencies through Direct and Distance modes.

DIET Head - Principal

	Pre-service Teacher Education Branch (PSTE)	Work Experience (WE)	District Resource Unit (DRU)
	1	2	3
I. Organised Structure A. Academic	1 Sr. Lecturer 8 Lecturers (Special in Language, Social Science, Mathematics & Foundations Art, PE). 1 Lab. Asst.	1 Sr. Lecturer 1 Lecturer 1 W.E.T.	1 Sr.Lecturer/ Vice Principal 2 NFE Lecturer 1 Lecturer A.E.
B. Administration	The Administrative staff, consultants resource persons, and physical facilities will be as per guide lines.		

	Inservice Programme, Field Interaction and Innovation Co-ordination(IFIC)	Curriculum, Material Development and Evaluation (CMDE)	Educational Technology (ET)	Planning and Management (P&M)
	4	5	6	7
I. Organised Structure A. Academic	1 Sr.Lecturer 1 Lecturer	1 Sr.Lecturer 1 Lecturer	1 Sr.Lecturer 1 Lecturer 1 Technician	1 Sr.Lect. 1 Lecturer 1 Statistician
B. Administration	Same as B above			

II. Functions (In Respect of Each Branch of DIET)

1. Pre-service Teacher Education Branch(PSTE)

1) Organisation of Pre-service Teacher Education for Elementary Teachers.

2. Promotion of child centred education and preparation of Aids, Action Research.
3. Multigrade/Peergroup teaching for NFE/AE.
4. Providing Guidance service in schools/ NFE/AE Centres.
5. Learning and Remedial Instruction for first generation learners.
6. Education of Mild and Major disability children.
7. Provide inputs to other Branches of DIET.
8. Maintenance of Lab., Resource room, supporting curricular activities in areas specified in school curriculum.

2. Work Experience (WE)

1) Identification of WE areas and development of teaching-learning material.

2. Help school/NFE/AE authorities to introduce W/E.
3. Conduct inservice programmes to help staff in WE.
4. Provide WE input in all programme of DIET.
5. Maintenance of the DIET.
6. Organisation of community service activities.
7. Maintain workshop and work related hobbies.

3. District Resource Unit (DRU)

1) Coordinate Training Programme for NFE/AE.

2) Nodal Branch for Induction training of NFE/AE staff and resource persons and other functionaries.

3) Instructional inputs in all areas of content and pedagogy for the above programme.

4) Evaluate and monitor programme of NFE/AE and suggest improvement.

5) Maintain a data base of personnel and facilities.

6) Adaptation of cocurricular and renewal when required.

7) Field interaction with NFE/AE.

4. Inservice programme, Field interaction and Innovation Co-ordination (IFIC)

1) Planning and Coordination of Inservice Education.

2) Identify teachers for Training, prepare Annual Calender of Training in and outside DIET.

3) Nodal Branch for organising inservice programme for all categories of staff in Elementary Education. Resource Programme using distance, distance-cum-teaching mode.

4) Evaluate/monitor the quality and efficacy of work programme in and outside DIET.

5) Maintain data base of all persons except of NFE/AE. Who undergo training in DIET.

6) Serve as a reference/resource centre.

7) Nodal branch for all Action research.

8) Disemination of information and coordination of activities.

9) Publication of periodical/journals for use elementary school teachers and other staff.

5. Curriculum, Material Development and Evaluation (CMDE)

1) Development of Curricular for Elementary education and Elementary teacher education.

2) Develop tests for evaluation, diagnostic and remedial teaching guidelines for teachers.

3) Assist DRU for the same exercise given in no.2 for NFE/AE.

4) Assessment to be undertaken in samples for Minimal learning competencies.

6. Educational Technology (ET)

1) Development of simple low cost teaching aids for various subjects relating to elementary education and elementary teacher education. The same attempts shall be made for NFE/AE.

2) Maintenance of the Audiovisual Equipments including a library of such materials and films with lending and borrowing facilities.

3) Keep liasion with TV, AIR for broadcast on relevant topics in the areas of Elementary education/Elementary Teacher Education, NFE/AE.

4) Conduct appropriate tests of evaluation of such TV/AIR programme.

5) Organise workshop for material development as per curriculum.	5) Conduct workshops.
6) Suggest inputs to other pre- and inservice programmes.	6) Provide AV inputs to other programme of DIET.

7. Planning and Management (P&M)

1) Preparation of Data base for educational planning within the District and monitoring facilities in UEE/UPE/NLM.
2) Conduct policy oriented research in the areas of enrolment, retention, attendance, interventions, community perception, and participation development of norms on Elementary school children, NFE/AE.
3) Provide Assistance to educational authorities in school mapping, microplanning for UPE/UEE in area specific group, institutional planning, and evaluation.

4) Serve as nodal branch in community involvement programmes and organise orientation programmes for members of DBE. HMs, Heads of School Complex, Block level Officers.

5) Assess efficacy of various programmes implemented in the framework of objectives of UPE/UEE/NLM.

6) To prepare consolidated reports on the functions of DIET and supply inputs to other programmes and branches of DIET.

7) To conduct Action Research on Field interaction activities.

The functions of the IFIC branch alongwith others have been summarised above and the guide lines for IFIC branch for operating and implementing the programme can be viewed interms of Action plan.

The IFIC has, through inservice teacher education programme must inculc te knowledge skills and attitude required under the need curriculum being implemented in Elementary schools.

a) Training of the teachers by contact atleast for 2 weeks over a five year period.

b) Regular professional meetings during the session at the school complex.

c) Professional support through print and audiovisual media.

d) Every primary teacher has to be covered under the contact mode in or outside the DIET.

e) The inservice programme may be scheduled for Headmaster and Head of School Complexes.

f) The programmes are to be theme specific.

g) Refreshers training programmes for AE/NFE personnel.

h) Orientation programmes for members of DBE and VECs, Community leaders, etc.

The operational framework would also be sent to DEO and management of non Govt. Schools who will sponser teachers to the programme. The programme has to be planned with a course director drawn from IFIC, with basic outlines of the course. Particepant evaluation, and programme and faculty evaluation of training programmes be organised using both contact and distance mode.

In the Field interaction sector, identification of practical problems and ways to tackle such problems in the field, innovation, success experiences, providing academic guidance, advising and giving resource support through extension works dissemination of materials, encouraging school complexes, teachers, NFE/AE personnel, identifying workers of high calibre and committment, to discharge the functions.

Action research on enrolment, retention, learning, remedial teaching for SC/ST, disabled, disadvantaged, girls, women, minority community, first generation learners, trying out specific activities may be undertaken by the branch duly approved by PAC of the institute.

There are several other activities of the DIET with respect to each branch. However, the success of the scheme would depend upon the coordinated effort of all the branch and units under DIET and because it is a new thrust, proper deliborations and consensus and expertise be considered before floating any programme.

******

Module No. 2

INDUCTION TRAINING PROGRAMME FOR IFIC FACULTY OF THE DIETs IN THE EASTERN REGION-AN OVERVIEW

Dr.S.T.V.G.ACHARYULU

The National Policy on Education (NPE) and the accompanying Programme of Action (POA)(1986) for its implementation have given the necessary impetus to the goal of Universalisation of Elementary Education (UEE). One of the important goals of elementary education is to ensure that all children atain certain minimum levels of learning at the primary and upper primary stages of education. All these centre around the teacher and his character and competence. This in turn depends upon the quality of teacher training and other resource support. For quite some time such academic and research support is provided at the National Level by NCERT and NIEPA and the State level by SCERTs. Similarly for adult education necessary support is provided by the Central Directorate of Adult Education and the State Resource Centres (SRCs) at the National and State levels respectively.

Both the systems of elementary education and adult education have expended so much that the NPE and POA have suggested the decentralisation of academic and resource support. Consequently district level supporting organisations called 'District Institutes of Education and Training (DIETs)' came into existence. The POA (1986) has highlighted the following functions of DIETs:

- Organisation of preservice and inservice teacher education for the formal elementary school system.
- Organisation of induction level and continuing education programmes for Instructors and Supervisors of Non-formal and Adult Education Centres.
- Training and orientation of heads of institutions in institutional planning and management and micro level planning.
- Academic and resource support to school complexes.
- Encouraging action research and experimental projects.

- Functioning as an evaluation centre for primary and Upper Primary schools as well as for adult education and Non-formal education centres.
- Provision of services of a resource and learning centre for teachers and instructors.

The DIETs have to achieve excellence in their own work while keeping elementary schools, non-formal and adult education systems in the district to achieve excellencellence. They have to become models for other educational institutions to emulate.

DIETs and its Academic Branches

The DIET has seven branches. Most activities and programmes of the DIET would be such that they call for the involvement of two or more branches. The branches are:

- Preservice Teacher Education (PSTE)
- Work Experience (WE)
- District Resource Unit (DRU)
- Inservice Programmes, Field Interaction, and Innovation Coordination (IFIC)
- Curriculum, Material Development and Evaluation (CMDE)
- Educational Technology (ET)
- Planning and Management (P&M).

The focus of the present induction training programme is on the faculty of IFIC, which has the responsibility to organise inservice programmes for teachers, headmasters and other target groups within the district and thus contribute to qualitative improvement of elementary education.

The aims and objectives of the induction training programme for the faculty of IFIC branch of the DIETs include the following:

- To enable the IFIC faculty to understand the purpose and functions of DIETs in general and the IFIC Branch in particular.
- To enable the IFIC faculty to identify the needs of teachers working in the elementary schools of the district and to chalk out perspective plans to meet them through inservice programmes.

- To help IFIC faculty to prepare annual calandar of Main Programmes (including theme specific programmes) for :
  - a) Primary and Upper Primary teachers
  - b) Headmasters of Primary and Upper Primary Schools
- To enable IFIC faculty to organise inservice education programmes for the teachers in the contact/distance/distance-cum-contact modes.
- To serve as a nodal point for preparing training programmes for:
  - a) Heads of Schools Complexes and Block Education Officers
  - b) Resource persons who conduct the Main programme at centres other than DIET.
  - c) AE/NFE Personnel.
  - d) Teachers and Heads of Schools whose content does not relate to any specfic Branch of DIET.
- To enable the IFIC faculty to evaluate and monitor the quality and effectiveness of inservice programmes organised for various targets groups.
- To maintain a data base on all teachers, headmasters etc., who have attended the inservice programmes and to conduct follow up studies.
- To enable the IFIC branch to function as a nodal point for coordination of inhouse action research and dissemination of results of research and innovation in elementary education.
- To expose IFIC faculty to the modules developed by the R.C.E., Bhubaneswar which would help them in organising omnibus inservice programmes (referred to as 'Main Programme' in the DIET Guidelines) of 2 to 3 weeks duration. The modules relate to the following areas:

- Micro planning and monitoring progress towards UEE.
- Inservice Modalities
- Planning of Inservice Programmes
- Extension Programmes
- Evaluation of Inservice Programmes

- Institutional Planning
- Educational Technology(development of low cost improvised teaching aids and effective use of A.V.aids).
- School Complex
- School Community Relations
- Child Centred Approach/Activity based approach to teaching
- Multiple Class Teaching
- Education of children with motor and other handicaps.
- Minimum Levels of Learning
- Clearing House Functions of IFIC for information on results of research, innovation etc., in the area of elementary education
- Education of first generation Learners
- Education of the gifted
- Using Classroom as a laboratory
- Achievement testing at the elementary level
- Action Research
- Methodology of teaching:
  - a) Environmental Studies (Social Science)
  - b) Mathematics
  - c) Language and Mother tongue
  - d) Environmental Studies (Science)
  - e) Work Experience
  - f) Science
  - g) Art Education
- Minimum levels of learning in:
  - a) Languages
  - b) Environmental Studies (Science)
  - c) Environmental Studies (Social Science)
  - d) Mathematics
  - e) Work Experience
- Value and Culture Education
- Diagnostic testing and Remedial teaching

The above are only suggestive and the needed materials could be developed in other theme specific areas. These modules are not final and could be improved.

As per Fifth All India Educational Survey we have about 87% trained teachers in our elementary schools. Our inservice teacher education programmes have not covered a great majority of these teachers. It is quite possible that many elementary school teachers must have retired without attending any inservice teachers training programme. In view of the changes in curriculum, teaching-learning approaches, evaluation etc , there is a great need for organising continuous inservice education programmes for elementary school teachers. Inservice education in its broader sense is as old as teaching itself. Despite shortcomings inservice teacher education has contributed substantially to the upgrading of thousands of substandard teachers. These have been providing greater depth and breadth both in content and methodological aspects in areas where elementary school teachers are found to be deficient. Essentially, inservice education should do for teachers in service what preservice training is now doing to new teachers.

We have to view preservice and inservice teacher training as a continum. Both preservice and inservice teacher education programmes attempt to develop the knowledte and skills believed to be necessary for effective teaching. They both attempt to make the learning experiences relevant to the learner. They both have the ultimate goal of improving the performance of the teacher. Both have, as one of the highest priorities, the transfer of training into practice in classrooms.

The purpose of inservice education is to keep teachers informed and to pro-e advances in curriculum instruction, testing, and evaluation. Inservice education of teachers is the major key to the building of greater professionalism among elementary school teachers. The quality of teachers in our elementary schools is a matter of the deepest social concern. We need teachers whose potentialities have been developed highly, whose knowledge is accurate, extensive and up-to-date, who like and are liked by children, who are willing to improve their own teaching, who know how to guide students learning and who know how to evaluate student progress in terms of objectives.

All inservice elementary teacher education programmes should be based on needs emerging out of research findings. Unfortunately due to meagre research effort in this direction we are guided mostly by expert opinion and feasibility. The enormous number of elementary school teachers who require inservice training and financial constraints create difficulties in meeting even the recommendation of Education Commission (1964-66) that "every teacher would be able to receive atleast two or three months of inservice education in every five years". The National Commission on teachers likewise recommends that "attendance at an inservice training course be made mandatory for every teacher atleast once in five years". The frequency of inservice teacher training programme for the target groups depends upon the number of personnel who are to be given such a training. The question of how many programmes each target group person has to attend once in 3 or 5 years depends upon the number of teachers and the number outside. It was estimated that DIET could conduct 12 to 14 programmes with an intake of 40-45 participants per programme and covering 500 to 600 elementary school teachers in a year. The State-wise distribution of primary and upper primary schools along with the number of teachers is given in table 1. This data would be helpful in planning the inservice programmes for elementary school teachers.

Table - 1

State-wise distribution of Primary and Upper Primary Schools and number of Primary and Upper Primary School Teachers in the Eastern Region

Sl. No. State	Primary Schools		Upper Primary Schools		Total Schools	Total Teachers
	No. of Schools	No. of Teachers	No. of Schools	No. of Teachers		
1. Arunachal Pradesh	952	2597	182	1029	1134	3626
2. Assam	25873	62833	4991	30758	30864	93591
3. Bihar	51377	130950	12211	77404	63588	208254
4. Manipur	2757	10754	436	4219	3193	14973
5. Meghalaya	3692	6871	665	3075	4357	9946
6. Mizoram	1005	3296	463	2656	1468	5952
7. Nagaland	1131	5622	291	2929	1422	8551
8. Orissa	34178	85321	8271	28149	42449	113470
9. Sikkim	468	4048	121	874	589	4922
10. Tripura	1927	10040	419	3711	2346	13751
11. West Bengal	48456	167172	3127	44630	51583	211802
12. A&N Islands	177	1134	40	606	217	1740
Eastern Region	171993	490538	31217	200040	202210	690578
All India	529392	1865503	138687	921612	668079	2787115

Source: Fifth All India Educational Survey: Selected Statistics as on September 30, 1986, Pages 24-25 & 80-81.

While designing Inservice Teacher Education Programmes one should ask himself the following questions:

- To what extent the programmes address real problems ?
- What is the purpose of the programme ?
- What are the specific objectives ?
- What is the target group ?
- What is the content ?
- What is the duration ?
- What is the resource team ?
- Should it be theme specific or omnibus type of programme ?
- What instructional materials are to be prepared for the target group ?
- How do we schedule the sessions ?
- What is the number of participants ?
- What is the training modality ?
- How do we monitor the programme ?
- What are the expected outcomes of the programme ?
- How do we evaluate its effect ?
- What follow up is needed ?

Such questions will guide us in formulating useful and meaningful inservice teacher education programmes for elementary school teachers. In this induction training programme you will have ample opportunities to ponder over many issues and problems related to inservice programmes - their planning, management, delivery system modalities, programme transaction methodologies, monitoring, evaluation, feedback, and follow up.

We hope you will find this Induction Level Training Programme to be meaningful and helpful. We look forward to your active participation and cooperation. We treat you not merely as participants but also as resource persons and your experience would be valuable in enriching this programme. Nothing pleases us more than your involvement, and especially in the preparation of perspective Five Year Plans and Annual Calendar of Inservice Programmes (Main and theme specific) for various target groups so that these could be organised by the DIETs in your State.

****

Module No. 3

PLANNING OF INSERVICE EDUCATION PROGRAMMES

Dr. D.K. Bhattacharya

1. Overview :

The programme of in-service education of the teachers has attained unprecedented prominance in recent years. Professional development of teachers and other functionaries of education system has been considered as equally vital as curricular reform, new policy directives, financial logistics and other factors for initiating qualitative change in the system of school education. Teacher and other functionaries of education system should have opportunities to be constantly informed about new developments, to judiciously select alternatives and to make periodic judgement in regard to the adequacy of teaching methodology and skills in the classroom and to assess learning outcomes. Every teacher should have access to technical assistance so that they could act appropriately for cumulative skill mastery, apply theory in practice, plan instructional programmes effectively, assess shortcomings of instruction and improve it through experimentation. Inservice education programmes can help the teacher and other functionaries to acquire universally applicable competencies such as individualised instruction, motivation techniques teaching skills, alternative teaching methodologies, integration of content, methodology and skills and micro-level planning and management.

2. Emerging Thrusts and Perspectives :

2.1 Uniform pattern of inservice programmes may not be relevant for all the primary and upper primary teachers teaching in diffirent districts. The in-service programmes for the teachers are to be designed and organised on the basis of local needs.

2.2 There is also a need for designing in-service education programmes for functionaries like Headmasters, Heads of School Complexes. Block Education Officers, Resource Persons, AE/NFE personnel and members of DBE, VECs, Community Leaders, Youth and other educational activists. Inservice Training packages are to be designed for different target groups keeping in view the local needs and requirements.

2.3 Since primary teachers, upper primary teachers and headmasters of elementary schools are the principal human inputs or principal agents of change in the process of modernisation of elementary education, 'Main Programmes' are to be designed for them.

2.4 Designing of inservice programme for various target groups should be less prescriptive and more flexible since the problems of elementary education imparted through both formal and non-formal channels are widespread and the problems of each school/each block/ each district are unique by nature.

2.5 Diversity in planning and designing of in-service programmes are to be encouraged since all aspects of professional competence cannot be dealt with through a single strategy.

2.6 There is a need of greater emphasis on practical application of theories.

2.7 Improvement of quality of teaching-learning is to be viewed as central focus.

2.8 The participants of in-service programmes will play a major role in determining the objectives, the content, transactional methodology of inservice education programmes as well as in assessing pragmatic strength and weakness of the programme.

2.9 The consultants, the subject specialists, the resource faculty and the designers of in-service education package should have a high degree of practical experiences.

2.10 In-service education programmes imparting differentiated training experiences for teachers belonging to different levels, are more likely to accomplish their objectives than the programme which prescribes common activities for all participants.

2.11 In-service education programmes that emphasize trainee-active/participative approach, investigation, demonstration-cum-discussion, practicals, project work, problem solving, sharing of experiences, transaction of message through audio-visual modes, discovery learning, field visits, self-study, case studies and dissimination of success stories and innovations are likely to accomplish their goals.

2.12 The in-service education programme should focus on the problems the participant encounters in his or her area of operation i.e. in classroom by teacher, in planning and management by headmaster or Block Education Officer etc.

2.13 Inservice Education for various target groups should emphasize/various alternatives in instruction/planning/management/supervision/strategies rather than single method or single strategy.

2.14 The training units should be sufficiently flexible to allow/various target groups to begin at their own level and to progress at their own speed.

2.15 Inservice education programme should encourage educational innovations wherever possible.

2.16 The central focus of inservice education for primary and upper primary school teachers is the remediation of teachers' deficiencies in the areas of content, teaching methodology and skills and competancies.

2.17 Inservice Education programme should become a permanent feature of education system so that the growth of professional competency is sequential and continuous.

3. Objectives :

The objectives of inservice education programme are :

3.1 To enhance professional competancy of the concerned target group based on local needs and requirements.

3.2 To improve the quality of teaching-learning through practical application of theories, integration of content-methodology and skill, formulation of alternative strategies in instruction/planning/management/supervision/monitoring, application of innovations and conduct of experimention.

3.3 To dissiminate informations in regard to new policy decision, programmes, policy initiatives, results of experimentation/research and matters related to professional interest of teachers and other educational functionaries.

3.4 To provide resource support and professional services to schools/other agencies.

3.5 To promote action research and field interaction (including extension) on the basis of felt needs/problems of teachers and other concerned functionaries.

3.6 To evaluate and monitor the effectiveness and performance of the programmes.

4. Pattern of Incentives/benefits :

The pattern of incentives for various target group for participation in inservice programmes are :

4.1 To obtain credentials/certificates on completion of courses.

4.2 To get recognition for promotion/increments/positions/change of cadre/crossing efficiency bar/and inservice record book etc.

4.3 To enchance professional competency

4.4 To derive job satisfaction

4.5 To improve the quality of teaching-learning and consequent improvement in quality of school education.

5. Target Group Specification :

Various target groups to be covered by inservice programmes are :

5.1 Trained primary/upper primary teachers

5.2 Untrained primary/upper primary teachers

5.3 Underqualified primary/upper primary teachers

5.4 Teachers teaching various subject areas at primary level.

5.5 Teachers teaching disadvantaged learners e.g. tribal, handicapped, slow learners etc. at primary level.

5.6 Teachers belonging to various seniority bralkets working at primary level

5.7 Headmaster of primary/upper primary schools

5.8 Heads of school complexes

5.9 Block Education Officers

5.10 AE/NFE personnel

5.11 Members of DBE, VECs, community leaders, Youth and other Educational activists.

6. Delivery system Modalities :

Inservice programme delivery system modalities may take following form :

6.1 Workshop/orientation programmes designed at national level (NCERT level for example).

6.2 Workshop/orientation programmes designed at state level (SCERT level for example).

6.3 Workshop/orientation programmes designed at district level (DIET level for example).

6.4 Induction level training programme designed centrally.

6.5 Induction level training programmes designed at DIET level.

6.6 Short-term/medium-term Refresher Training programmes for various target groups.

6.7 Teacher centred training course comprehensive, medium term, short term.

6.8 School centred training courses [illegible], term, short term.

6.9 Subject centred training courses [illegible], medium term, short term.

6.10 Target group centred training courses [illegible], medium term, short term.

6.11 Faculty Development programmes.

6.12 Courses for improvement of [illegible].

6.13 Theme specific programmes for specific target group.

6.14 Workshop for preparation of courses/[illegible].

6.15 Advance level training programmes.

7. Planning Inservice Education Programmes.

Planning/Designing of inservice programmes [illegible] the following steps :

7.1 Identification of Training Needs of [illegible] groups.

7.2 Classification of Training needs and [illegible] training needs and routine training needs.

7.3 Preparation of a perspective plan in [illegible] relevant delivery system modalities [illegible] comprehensive training courses of medium term, training course/workshops/induction level/training/orientation programmes and provision of [illegible] professional meeting/discussion during the [illegible] session.

The perspective plan should highlight the existing status of elementary teacher education system in the concerned state/district and should indicate how to improve the status in a [illegible] planned and time-bound manner. The formulation of perspective plan would include :

7.3.1 Action plans to liquidate the backlog of untrained teachers.

7.3.2 Formulation of modalities to met the inservice training need of elementary teachers (including Headmaster), AE and NFE personnel etc. and the sharing of responsibilities between DIET and other institutions.

7.3.3 Translation of perspective plan into annual calender of programmes to be held at DIET and outside DIET.

8. Organisation of Inservice Education Programmes :

8.1 Development of 'Main' Programmes :
'Main' programme would be the focus of inservice activity. Each DIET is to develop its own set of main programmes for different target groups i.e. main programmes for primary teachers, main programmes for upper primary teachers, main programmes for headmasters etc. based on the guide lines provided. These main programmes are to be formulated keeping in view the in-servicing training needs of the concerned target group of the district. These main programmes would have a common core based on common thrust and perspectives and other components would be designed to meet the specific need of the target group of individual district.

8.2 Development of theme specific programmes

8.3 Development of training programme for resource persons involved in main programmes designed for various target groups and theme specific programmes as outlined above.

8.4 Development of designs of distance/distance-cum-contact modes of inservice training programmes.

8.5 Development of organisational design of district level study centre.

8.6 Development of tools for evaluation of the programme.

8.7 Development of strategy for monitoring and follow-up of the programme.

9. Programme Transactional Methodology :

The focus of course transaction methods [illegible]

9.1 Lecture-cum-discussion - minimum lecture.
9.2 Emphasis on participatory group discussion.
9.3 Emphasis on trainee-active/participative [illegible].
9.4 Investigation
9.5 Case Studies
9.6 Self-study
9.7 Demonstration-cum-Discussion
9.8 Practicals
9.9 Field visits
9.10 Project work
9.11 Problem solving
9.12 Sharing of expeiences
9.13 Transaction of inservice messages through audio-visual modes like video and audio-cassettes, telecast/broadcast, films, slides, [illegible].
9.14 Emphasis on discovery, learning and [illegible] trainees.
9.15 Identification of practical problems [illegible] the field.

10. Duration-Time Scheduling :

Time schedule for inservice programme may be [illegible] on the basis of local situations. However, [illegible] are :

10.1 During vacation
10.2 During holidays
10.3 Evening
10.4 After the school hour training in the context [illegible] may take the following form :
10.5 Comprehensive training course for preferably 3 to 5 weeks.
10.6 Medium Term Training Course/Workshop/Induction level training/Orientation Programme/Symposia for minimum two weeks.
10.7 Regular professional meeting/discussion during the academic session at school complex/DIET/Teacher centre where the teacher can receive inservice

message through discussion with resource faculty, audiovisual aids, sharing of experience, demonstration etc.

11. Resource Faculty :

The resource faculty may include :

11.1 DIET faculty members
11.2 Training college faculty members
11.3 SCERT faculty members
11.4 Sr. Principals/Headmasters of H.S./Secondary Schools
11.5 Reputed teachers/National awardee/State awardee teachers.
11.6 Inspector of Schools/DEO's/Deputy Inspector of Schools.

12. Evaluation of Inservice Programme :

12.1 The evaluation of inservice programme may be of two types : participant evaluation and faculty evaluation.

12.2 Evaluation may be done at the end of each module by giving an exercise, short problems or test to the participants. At the end of the programme the evaluation could also be done.

12.3 Evaluation could also be done at subsequent timepoint. The purpose of evaluation is diagnostic and remedial by nature.

12.4 Evaluation of Inservice Programmes should focus on :

12.4.1 Realisation of objectives
12.4.2 Course design
12.4.3 Course Transactional Methodology
12.4.4 Adequacy of organisational strategies
12.4.5 Effectiveness of Programme Inputs
12.4.6 Preception of Course Directors Resource Faculty and Teachers in regard to organisational strategies, effectiveness of programme inputs, and transactional methodologies.
12.4.7 Degree of awareness generated with target group.

12.4.8 Visualisation of new roles by the target group.

12.4.9 Attitudinal change generated in the target group after training (if evaluated at subsequent time point).

12.4.10 Competency acquired by the target group in transfering training input (if evaluated at subsequent timepoints).

Information check list-cum-rating scale could be potential tools for evaluating the effectiveness of various aspects of the programme. Degrees of awareness generated and the degree of visualisation of new roles by the target group may be evaluated by multiple choice type of items.

Now certain problems are presented before you. You may feel free to suggest solutions.

Problem - 1

Is it possible to provide time for inservice education by the teachers within normal routine working hourse without putting undue load on teachers ?

Suggest solutions :

1.
2.
3.
4.

Problem - 2

In existing inservice programme for the teachers knowledge in the content area, teaching methods and teaching skills are treated separately. But in actual practice these three elements work in integration. Is it possible to design training material integrating these three elements?

Suggest solutions :

1.
2.
3.
4.

Problem - 3

Existing inservice programmes ignore the problems of real school situation. Inservice Education Programme should fit the real school conditions. The inservice programmes should be tailored to the situational context.

Suggest solution :

1.
2.
3.
4.

Problem - 4

Even when the inservice training has been designed to suit the requirements of the school situation, teachers in the school will progress at different rates and master the training objectives in different ways. How then, training could accomodate the teacher individually ?

Suggest solutions :

1.
2.
3.
4.

Problem - 5

Individual teacher, Teacher Associations, School Administration - all would try to determine the objectives of inservice education best suited to them and control the management of the programme. How to strike out a compromise ?

Suggest solution :

1.
2.
3.
4.

Problem - 6

A number of target groups have been specified for training under IFIC Branch of DIET. List out the priority tafget groups :

1.
2.
3.
4.

Problem - 7

A number of Delivery system Modalities have been suggested. Please list five modalities in order of importance suited to infrastructural financial constraints of DIET to which you belong.

1.
2.
3.
4.
5.

Problem - 8

List appropriate programme transactional methodologies suited to your DIET/Local conditions in order of importance/preference.

1.
2.
3.
4.
5.
6.
7.
8.

*****

b/s

Module No. 3

INSERVICE MODALITIES

Dr. S.K. Goel

1. BACKGROUND :

The need for a continuing programme of inservice training to raise the qualifications of teachers and to update their knowledge and skills cannot be over-emphasized. Education connotes continuous growth, particularly so for teachers and other educational personnel. Inservice education refers to all activities on the part of employed persons that contribute to the professional growth and qualifications, e.g., travel, professional reading, participation in seminars, workshops, conferences, postal tuition, lectures, demonstration of new experiments/teaching aids/equipments, educational programmes on Radio/T.V. etc. to create in them a feeling of security and a sense of self-confidence in the discharge of day-to-day duties.

In this age of science and technology, many new modern developments are taking place and the fresh information is being generated at an exponential rate and there is information explosion in every branch of knowledge. The old traditional and conventional ideas and teaching methods are inadequate and do not meet the present day requirements. With the increasing complexity of problems and latest advancements in every field, the expectations from the teachers are also increasing. If they fail to keep abreast with the latest developments and forntiers of knowledge, they will be giving yesterday's education to tommorrow's citizens. Thus a teacher must continue to learn and grow professionally so that he can create a thirst for knowledge amongst his pupils.

In the early days, the teachers' spoken words were the only medium of communication through which children learnt. The teacher used to teach his students orally and the students repeated his words and committed their to memory. Later, the books and newspaper were made available with the advent of printing technology. These helped in developing awareness and providing information about things and happenings. Now a days other mass media like radio and television are also increasingly used in education in India.

The boundaries of human knowledge are expanding day by day and changing very rapidly. So the curriculum in various subjects is chaning and being periodically updated. However, it is very important to consider at the same time that the knowledge of the teachers cannot be updated automatically to transact the new curriculum. In this connection, it is felt that the mass media could be of great help in orienting a large number of teachers simultaneously in the new pedagogy and content of teaching. This requires specialized knowledge and skill on the part of the teachers to utilize these media not only for their benefit but also for the benefit of their students.

2. OBJECTIVES

After completing this module, you should be able to :

a) classify various inservice modalities.

b) classify various instructional media into meaningful categories.

c) appreciate the advantages of using various inservice modalities.

d) acquire necessary skills in utilizing various inservice modalities for updating knowledge in the area of your interest.

e) utilize the newly acquired knowledge through inservice training for the benefit of your students.

3. ACTIVITIES

During your teaching career, you must have felt the necessity of some training programmes in order to keep yourself abreast with the latest developments in the subjects(s) of your interest. You must have thought of various inservice modalities in view of short time available at your disposal so as to develop a sense of self-confidence in the discharge of your day-to-day duties most efficiently and effectively to the utmost satisfaction of your students. Can you think of various inservice modalities ?

Activity Sheet No.1

List various inservice modalities on a separate sheet.	Collect Collate Discuss

Can you classify these modalities into categories ? During your teaching career, you must have used various instructional media and also must have felt the need of acquiring knowledge in modern electronic media and sophisticated automated devices available today for improving the teaching-learning process. What kind of instructional media. Can you think of ?

Activity Sheet No.2

List various instructional media on a separate sheet.	Collect Collate Discuss

Can you classify these instructional media ? You may find that these media can be classified into different categories such as print and non-print media; zeor-cost, low-cost and high cost media; projected and non-projected media.

Activity Sheet No.3

Categoriese various instructional media.

Collect
Collate
Discuss

Non-machine devices can be used by the teacher and he can acquire expertise in preparing them so as to make his lessons more effective. Some of them are given below :

Charts
Cut-outs
Flannel-cards
Flash Cards.
Games
Graphs
Maps
Models
Pictures
Specimen
Toys

Machine operated devices which require the use of machines are :

Audio-cassettes
Filmstrips
Overhead transperencies
Slides
Video-cassettes.

Mass Media

Films (16 mm, 35 mm)
Radio
Television

4. INSERVICE MODALITIES :

A number of modalities like 'Face-to-Face', "Distance" and "Relay" can be used for inservice education.

Under these heads, various techniques for inservice education are given below :

4.1 Workshops : In the workshops, emphasis is laid on practical work. The workshop broadens the professional outlook of the participants and provides sufficient scope for cooperative group work. The participant gets an opportunity to study the problem in depth which has arisen out of his experience as a teacher. Each participant offers his suggestions which are very useful for group discussion. The useal schedule of the workshop consists of general sessions and small group meetings, free time for individual study, lectures and video film shows, field trips and presentation of workshop reports.

4.2 Seminars and Conferences : A seminar is a small class or group for discussion, and technique, knowledge and experience are gathered by collective amd cooperative efforts. Conferences of teachers, supervisors and administrators can broaden the range of experience and cultivate professional team-spirit.

4.3 Refresher Courses : They are very useful for professional growth of teachers as they help in updating their knowledge and experience. The course may include new educational plans, policies and schems introduced by government and other agencies. Experienced faculty members and education officers from University deptts, training colleges and government deptts. may be invited to conduct the refresher courses.

4.4 Summer and Winter Institutes : Through these institutes, teachers can refresh and update their knowledge and learn new methods and techniques from experts as well as from the teachers coming from different school systems. Teachers once again feel a taste of student life which adds to their enjoyment of life. They can utilize their vacations properly and return to the schools better equipped to meet the challenges of new education.

There are many agencies like Training Colleges, University Departments of Education, Directorate of Education, NCERT, etc. which can collaborate in making arrangements for these institutes.

4.5 Lectures : This is one of the oldest methods for inservice education and teacher-orientation tasks. The lecture is primarily meant for the transmission of knowledge and is purely aural-oral activity. It can be used with groups of any size. Though visualised lectures usually require smaller groups, use of projection equipment and mike can be used even for very large groups. Experts from various disciplines may be invited to deliver lectures and have direct interaction with the student-teachers.

4.6 Project Groups : Project group work may be organized with a tangible end-product in mind. The groups can conduct surveys of community and action research, assess school, block or district educational programmes, design suitable courses of study by updating the curricula with modern developments and suggest elimination of obsolete information. Group discussions, surveys and suggestions from educationists may lead to successful accomplishment of project work.

4.7 Field Trips . Lecture and reading activities should be combined with field trips which will help the teachers to see ongoing operations related to their jobs. These may take the form of community tours, city tours, state tours, or even a foreign tour. The teachers may get first hand experience of many developments taking place throughout the country and may supplement vital information in the classroom situation.

4.8 Demonstrations : The demonstration emphasises aspects of operational behaviour that observes need to see. The needs of the observers must be looked into before planning any demonstration. Only skillful demonstrators are selected for the purpose. Also the physical environment should be suitable so as to ensure clear vision, hearing and smooth demonstration. Observation guides may be prepared for the observers so that they not only look but also analyse, record and tabulate to draw generalizations and make applications.

4.9 Directed Practice Activities : The need for skill development e.g. skills for the preparation of instructional materials, audio-visual aids, lessons, etc. may be indicated by classroom observations. An experienced teacher whose teaching helps in important skills development should be observed and followed by directed practice sessions with the help of resource persons.

4.10 Correspondence Education : The correspondence education is an innovative channel with the clear-cut objective of "equalization of educational opportunities", promoting, learning and earning together, breaking the walls of formal education. Correspondence education is a method of teaching in which the teacher bears the responsibility of imparting knowledge and skills to the students who do not receive instructions orally but who study in different places determined by their individual circumstances. It takes care of those teachers who are not free at school hours, physically handicapped, expectant mothers, housewives and also those who are very old. This technique can prove very effective for inservice training. Various universities have started various courses which can go a long way in helping the teachers to get inservice education and improve their qualifications and status.

In order to make correspondence education more effective, it is essential that personnal contact programmes for the trainees be organized. The duration and frequency of such a contact programme will depend upon the theme of the course being studied and the capacity of the institution to organize them. Thus the difficult areas of the study are explored by way of classroom teaching, seminars, debates, panels and exposure to the renowned experts of the field. Such contact programmes are absolutely necessary in professional, technical and highly academic courses, but desirable in all the courses of correspondence teaching.

4.11 Correspondence-cum-Contact Course : Because of the very large number of untrained teachers working in schools, it is not possible to provide training for them in the regular courses. The colleges do not have the capacity to admit them and neither is it possible for the teachers to leave their jobs for a year and come for training. Therefore provision has to be made to train them through correspondence-cum-contact courses. The four Regional College of Education of the NCERT carried out this training for the inservice teachers, each for its own region. The course content is broadly the same as that of the regular B.Ed. course of the college. The student-teachers receive a degree after completion of the course from the University to which the college is affiliated.

The contact programme is conducted during summer vacations and the regular classes are held for about two months. Lessons are sent to the student-teachers by mail in the following nine months. The trainees are expected to send in assignments which are evaluated and mailed back to them. Practice teaching is also arranged under the guidance of a supervisor appointed by NCERT. Student-teachers who have completed their assignments and practice teaching are called for the second contact programme in the following summer vacation. About twenty-five percent of the content is covered by correspondence and seventy five percent in two summer contact programmes. This course has been discontinued now in the Regional Colleges.

4.12 Experimental Projects : Most of the findings of educational research have been observed to have little or no influence on school practices. If a teacher conducts an experiment, he learns in the process, it will have immediate impact on his work and increase his involvement in the work. But the school budget hardly makes any provision for additional expendtire on experimentation. NCERT has a scheme of giving grants to enable teachers to carry out worthwhile experimental projects. Under the scheme, ideas for research and experimentation are invited from teachers. Most of the projects are in the nature of action research. NCERT has conducted some programmes to provide guidance to teachers in designing experimental projects. Training has also been provided to resource persons in the states to enable them to guide and supervise the projects.

4.13 Seminar Readings : Teachers and teacher educators are invited to write papers based on their experimentation, innovation and creative thinking. The papers are submitted to the respective state Institutes of Education. On scrutiny by SIES, the best papers are forwarded to NCERT for final screening. There are four separate competitions, one each for elementary teachers, secondary teachers, elementary teachers educators and secondary teacher educators. Cash prizes are awarded for the best teachers. Contributors of the award winning papers are invited to seminars to discuss their papers.

4.14 Mass Media :

4.14.1 'Film shows' is a form of visualized lecture by remote control but it certainly lacks live narration. However, if the film show is followed by discussion, it can serve as a useful technique for inservice training.

4.14.2 Educational broadcasting on radio has immense possibility in a developing country where constraints of finance, equipments, qualified teachers and other inputs operate adversely. If can reach all parts of the country including the inaccessible areas. With imaginative planning on creative directions, it can yield better results than teaching by a teacher. If can have excellence through dramatisation, dialogue, musical features and other creative programmes which in the day-to-day classroom teaching are not possible. It has therefore been accepted as a powerful mediums for education, entertainment and information.

What can educational radio do ? Almost anything a really imaginative, well-trained, resourceful and enthusiastic teacher can do. In actual practice, the purpose of such programmes is to supplement the work of teachers and not replace classroom teaching by the teachers. Radio has been used in our country for educational purposes for about five decades now. A large number of Akashvani Stations regularly broadcast programmes for schools. A number of other Akashvani stations relay these programmes to make them available to a large number of schools in remote parts of the country. The programmes for schools produced by the Akashvani Stations are not only for children but are also for the teachers. Some Akashvani Stations' broadcast programmes in support of the correspondence courses offered by the universities. Educational radio can strengthen the non-formal strategies, particularly correspondence education in teacher-education. Some educational institutions like NCERT, New Delhi, CIEFL, Hyderabad and CIIL, Mysore also produce educational programmes which are boradcast by various stations of Akashvani. Most Akashvani stations print the annual schedule of the boradcast of educational programmes and distribute it among schools registered with them for their information.

Activity Sheet No.4

Find out the names of Akashvani Station(s) in your district/state which broadcast educational programmes for teachers and children. Find out which agency prints and distributes a schedule of educational broadcasts. Contact them and request them to put your name on their mailing list. Find out the possibility of procuring a radio set for your school if you don't have it.

Collect
Collate
Discuss

4.14.3 Educational Television (ETV) has been used in our country for the last three decades nearly. ETV was first used in the schools of Delhi in 1961 and the scheme was later taken up by other Doordarshan Kendras. The first attempt to use TV on a mass scale was made by using an American Satellite, namely ATS-6, in 1975-76 during the Satellite Instructional Television Experiment (SITE) was conducted for a year in 2330 villages scattered in 20 districts in six states, viz, Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa and Rajasthan. The satellite was also used for the orientation of primary school teachers in science for 12 days during the autumn vacations of 1975 in which more than 24,000 teachers participated. The training was repeated with a group of teachers during the summer of 1976. ETV is now used on a mass scale in the country for the qualitative improvement of elementary education after acquiring our own satellite, viz, Indian National Satellite (INSAT) in April 1982. The UGC programmes are being telecast every afternoon on Television for the benefit of university/college teachers and students.

ETV is a more powerful medium than Radio as it combines sound with moving visuals. TV can be of particular help for the demonstration of skills, clarification of difficult concepts, incullation of values and attitudes, and conveying informative ideas in a novel manner. Both Radio and TV help to a considerable extent in inservice education. There are very many advantages in using radio and TV in education.

Activity Sheet No.5

Make a list of advantages of using Radio and Television in education.	Collect Collate Discuss

At the same time both the media have certain limitations. One major problem is that there is only one-way communications; the listener/viewer cannot ask questions and get clarification on the spot. The listener/viewer has to move with the speed of presentation and one cannot ask for repetition of concepts. Becacuse of the limitations of mass media, you have to play an important role as a facilitator and guide. It is the experience of most of the teachers that they too benefit by listening to or watching the programme designed for the children. They may learn many new innovations and experiences from these programmes.

5. AN OVERVIEW

The NCERT has three basic types of inservice education programmes. These are : (a) long-term courses, (b) short-term courses, and (c) indirect inservice education programmes. The main consideration in the development of materials to be used in the inservice education courses is that of reaching a large number of teachers over a vast area economically. The materials used in the country are as follows :

1) Guides - NCERT has developed a variety of teachers' guides for teaching practices. Some of them are the following :
   a) Guides for the preparation and use of simple teaching aids;
   b) Teachers' guides as supplements to textbooks;

c) Guides for teachers and teacher educators on selected topics; and

d) Guides to supplement the use of other aids such as radio and television.

2) Radio and Television programmes have been used for the inservice education of primary school teachers. The television programmes have been much appreciated.

3) The use of modules has been introduced.

4) Involvement of teachers and teacher educators in preparing instructional material has been a part of several programmes.

5) Very limited use of tape-recorders has been made. This has been mainly in micro-teaching and in guidance and counselling.

6) Although most of the inservice programmes are in the form of contact courses, some have built in correspondence aspects. Projectable and non-projectable examplar materials like slides, films, trainsparencies audio cassettes, video cassettes, worksheets, etc. are also used. Pictures, slides, sculpters, and tapes of recorded music have been developed for courses in Indian Art and Culture.

Inservice education in the country is primarily concerned with four major areas, viz., (a) programme thrusts and policies of the educational system as a result of curricular reforms and innovation, (b) improvement of teachers competency skills on the various aspects of the teaching-learning process; (c) guidance and counselling, and (d) school administration and management. Strategies adopted to realise the goals and objectives in these areas of concern require the development and use of varied exemplar materials, and utilize the appropriate inservice modality depending upon the need.

6. FEEDBACK

1) What are various inservice modalities ?
2) What are various instructional media ?
3) What are the advantages of using mass media in education ?
4) Which modality will be beneficial for you to receive inservice training ?

****

b/s

ASSIGNMENTS
ON THE MODULE
INSERVICE MODALITIES

(Attempt the following multiple choice questions ([illegible]). Tick mark (|/) the most appropriate answer. Eighty percent mastery should be the target).

1) Modalities for Inservice Education are:

   a) Face to Face

   b) Distance

   c) Relay

   d) All the above.

2) Inservice education is necessary because

   a) the fresh information is being generated at an exponential fate.

   b) the old traditional and conventional [illegible] and teaching methods are inadequate.

   c) the expectations from the teachers are increasing

   d) all the above.

3) Instructional Media can be classified into different categories such as:

   a) print and non-print media.

   b) Zero-cost, low-cost and high-cost media.

   c) projected and non-projected media.

   d) all the above.

4) Machine operated devices used by the teachers are

   a) Audio-cassettes and Video-cassettes

   b) Filmstrips

   c) Overhead transparencies and slides.

   d) All the above.

5) Non-machine devices used by the teacher are

a) Charts, art-outs and models
b) Graphs, maps and pictures
c) Flash cards, games and toys
d) All the above.

6) The following are the techniques of mass media for inservice education.

a) Films
b) Radio and Television
c) Newspapers
d) All the above.

7) Face-to-face inservice modality could be:

a) Seminars, Conferences and Workshops
b) Correspondence courses
c) Radio
d) Television

8) The purpose of educational radio is to

a) supplement the work of teachers
b) replace classroom teaching
c) save huge expenditure
d) none of the above

9) The educational programmes for schools produced by Akashvani Stations are:

a) exclusively for children
b) exclusively for teachers
c) for children and teachers

10) Educational radio

a) can strengthen the non-formal strategies
b) weaken the correspondence education
c) is a form of visualized lecture
d) none of the above

11) The institutions which produce educational programmes and broadcast on various Akashvani Stations [illegible]

a) N.C.E.R.T.
b) CIEFL
c) CIIL
d) All the above.

12) ETV was first introduced in our country

a) three decades age (1960s)
b) two decades ago (1970s)
c) one decade ageo (1930s)

13) The SITE was conducted in 1975-76
20 districts in India in

a) 1500 villages
b) 2000 villages
c) 2330 villages
d) 2500 villages

14) The SITE was conducted for the States (1975-76).

a) Andhra Pradesh and Bihar
b) Karnataka and Madhya Pradesh
c) Orissa and Rajasthan
d) All the above.

15) ETV is now used on a mass scale in India for the qualitative improvement of elementary education after acquiring our own satellite, Viz. INSAT in the year

a) April, 1982

b) March, 1985

c) Sept., 1937

d) November,1988

16) ETV is a more powerful medium than radio because

a) it combines sound with moving visuals

b) it shows demonstration of skills; inculcates values and attitudes.

c) it conveys informative ideas in a novel manner.

d) all the above.

17) Both Radio and T.V. have some limitations like

a) there is only one way communication.

b) the listener/viewer cannot ask questions and get clarifications on the spot.

c) The listener/viewer has to move with the speed of presentation and one cannot ask for repetition of concepts.

d) All the above

18) It is the experience of most of the teachers that

a) they too benefit by listening to radio or watching the programme on Television designed for the children.

b) they may learn many new innovations and experiences from these programmes.

c) they can do further experimentation on similar line by giving several related examples in the classroom situation.

d) all the above.

19) The inservice education programmes designed by N.C.E.R.T. are:

a) long-term courses
b) short-term courses
c) indirect inservice education programmes.
d) all the above.

20) Inservie education is primarily concerned with

a) programme thrusts and policies of the educational system as a result of curricular reforms.
b) improvement of teachers' competency skills
c) guidance and counselling
d) school administration and management.
e) All the above.

*****

Module. No. 4

MICRO PLANNING AND MONITORING PROGRESS TOWARDS UNIVERSALISATION OF ELEMENTARY EDUCATION

Dr. D.K. Bhattacharya

1. Overview

Universalisation of Elementary Education has been considered as a priority area since long in our country. Inspite of considerable progress achieved towards providing free and compulsory education for all children upto the age of 14 years we are yet to achieve the goals of Universalisation of elementary education due to various geo-physical, socio-cultural and techno-economic contraints. A large number of rural habitations specially located in disadvantaged regions/tribal areas/hilly tracts/deserts and isolated pockets could not be covered by primary education facilities. A large number of rural primary schools do not have minimum physical facilities and many such schools are single teacher schools. According to Fifth All India Education Survey (1986) 51.36 percent habitations are having primary schools/sections within the habitation and 84.45 percent habitations are having primary schools/section within walking distance (1 km.) Percentage of habitations having upper primary schools/sections within the habitation and within walking distance (3 km.) are 13.25 percent and 75.80 percent respectively. Again, 80.34 percent rural population are served by primary schools/section within the habitations and 94.60 percent rural population are served by primary schools/sections within walking distance (1 km.) The corresponding percentage of rural population served by upper primary schools/sections within the habitations and within walking distance (3 km.) are 36.98 percent and 85.39 percent respectively. Total Gross Enrolment Ratios in classes I - V and VI - VIII were 93.63 and 48.51 respectively. Percentage of girls enrolment in classes I - V and in classes VI - VIII have increased from 38.27 percent to 41.16 percent and from 32.70 percent to 35.45 percent respectively during the period from 1978 to 1986. Enrolment in class V as percentage of enrolment in class-I has increased from 36.46 percent in 1978 to 49.28 percent in 1986. This reveals that still approximately 50 percent students those who had enrolled in class-I drops out by the time they reach class-V. A large number of primary schools do not have minimum physical facilities, and learning materials/furniture/equipments etc. Consequently they provide sub-standard and cheap elementary education.

2. Dimension of UEE

In the background of such a scenario the goals of universalisation of elementary education could be achieved through following dimension :

2.1 Universal Access to Facilities
2.2 Universal Enrolment
2.3 Universal Retention
2.4 Universal Completion
2.5 Universal Attainment of Minimum Level of Learning.

Universalisation of elementary education in term of universal access to facilities, universal enrolment, universal retention, universal completion and universal attainment of minimum levels of learning could be achieved through effective planning and continuous monitoring of progress of UEE. In view of wide geo-physical, socio-cultural, techno-economic and structural divergences of needs and conditions of various micro-regions of our country, there is a wide disparity in the provision of access to facilities, enrolment, retention, completion and attainment of learning among various socio-cultural/ socio-ethnic groups, micro regions and areas. Consequently, elementary education could not become relevant to the needs of local community. The goals of UEE could be achieved through micro-level or grass-root level planning and monitoring of progress. The planning and monitoring needs are to be identified in respect of various dimenstions of universalisation of elementary education as highlighted earlier.

2.1 Universal Access to Facilities

2.1.1 In order to achieve universal access to facilities 'school mapping' exercises are to be undertaken to identify the deprived areas where primary schooling facility does not exist and to ensure that every habitation which potentially have 50 children in the primary school should be provided with one upper primary school opened on primary school catchment basis.

2.1.2 For SC/ST and other disadvantaged groups facilities of more residential schools and hostels should be created. Detailed plans could be prepared for designing inexpensive residential schools where school building could be used for residential purpose at night with an additional provision of kitchen where local people/Panchayet/Voluntary agencies could be involved in cooking and supervision. In order to plan school mapping exercises and designing of inexpensive residential system for SC/ST and other deprived sections the following tasks are to be undertaken.

2.1.2.1 Survey of the location of the existing primary and upper primary schools/NFE centres located in the habitations classified as per population structure.

2.1.2.2 Analysis of demographic, pedagogic, geographical, economic, socio-cultural and other related constraints contributing to locational disadvantages.

2.1.2.3 Formulation of norm-based perspective plans.

2.2 Universal Enrolment

Fifth All India Educational Survey data (1986) has highlighted the emphasis on enrolment of girls, enrolment of SC/ST and other disadvantated sections.

The reasons of non-enrolment of children belonging to various categories of disadvantaged population are not uniform. Therefore uniform planning modality can not be adopted for enhancement of enrolment for various categories of children. Separate planning modalities are to be designed for enchancement of enrolment of children belonging to various categories such as girls, SC, ST and other disadvantaged sections. This planning approach is known as Target Group Approach. The following tasks may be undertaken for formulation of Target Group Approach for enhancement of enrolment :

2.2.1 House-to-house servey may be undertaken to identify the number of non-attending children, the reasons of non-attendance and specially the reason of reluctance on the part of the parents to send their children to schools. During such survey the teachers in cooperation with the village community may discuss with the parents the relevant benefits of schooling and of regular attendance.

2.2.2 Display of materials prepared by the students on different occasion.

2.2.3 Invitation to parents and guardian to participate in the school programmes so as to give them an idea about the activities of the school.

2.2.4 The teacher/functionaries assigned the task of house-to-house survey may identify from the parents of non-attending children who will go for part-time or full-time (non-formal or formal) instruction.

2.2.5 For new enrolment the teacher may extend door to door counselling/campaign.

2.3 Universal Retention

In order to ensure universal retention of children the following strategies could be adopted :

2.3.1 Children should be encouraged to attend the school.

2.3.2 The teachers task is not only to organise teaching-learning or to evaluate the achievement of the children but also to create an atmosphere in the school which will help the children to stay at the school and enjoy satisfying learning experiences.

2.3.3 Rapport with the parents is essential for retention. The teacher may try to know the real reasons of dropout and non-attendance. He may visit homes of dropped out children and meet their parents. The help of village panchayet/local influencial persons/voluntary agencies could be sought for persuing the parents to send their children to schools.

2.3.4 The schools calender or timings could be fixed to morning, afternoon or evening as per the needs and requirements of working children.

2.3.5 Quality improvement programmes in the form of remodelling teacher training and designing of teaching-learning materials could be undertaken.

2.3.6 A policy of non-detention may be followed, combined with continuous evaluation.

2.3.7 Targets of retention may be fixed realistically through a decentralised and participative mode of disaggregated planning rather than fixing targets in adhoc fashion.

2.3.8 School calender may be adjusted to agricultural operation/local festivals and weekly markets.

2.3.9 Child centered approaches should emphasise reduction in school hours but increase in learning hours through .

2.3.9.1 introduction of inquiry approach.
2.3.9.2 play-way
2.3.9.3 activity-based methods
2.3.9.4 creative writing
2.3.9.5 peer group learning
2.3.9.6 experimentation
2.3.9.7 creative use of singing, drawing, story telling, particularly of folk lores and folk arts.

2.4 Universal Completion

Mere accessibility, enrolment and retention are not enough for realisation of the goals of universalisation of elementary education. It is also equally important to ensure that all learners complete the course prescribed for primary and upper primary levels of elementary education. In order to ensure universal completion instructional planning and reforms are to be initiated. NPE : 1986 - POA had observed that 'The most important aspect of this reform will be to make education a joyful, innovative and satisfying learning activity, rather than a system of rote and cheerless authoratarian instruction.

2.5 Universal Attainment of Minimum Level of Learning

It is to be ensured that minimum level of learning competancies are realised. With this end in view ther is a need :

2.5.1 to identify the minimum learning competencies which every child is supposed to acquire in various subject areas and with reference to each instructional unit.

2.5.2 to frame specific objective of instruction on the basis of the identification of minimum level of learning competencies.

2.5.3 to evaluate the performance with reference to specified objective.

3. Planning Exercises required for UEE

In order to achieve UEE at micro-level the following planning exercises are required to be adopted :

3.1 Accessibility Planning

Accessibility planning could be undertaken through :

3.1.1 School Mapping Exercises at block level on the basis of Fifth All India Educational Survey data and guidelines prepared by MHRD/NIEPA from time to time.

3.1.2 Designing of inexpensive residential system with the help of local panchayet/ local-level planning officials.

3.1.3 Norm-based perspective plan for locational advantages.

3.2 Area-Level and Multi-Level Enrolment Planning :

Area level and multi-level enrolment planning should emphasise Target Group Approach and may include the following steps :

3.2.1 Block-wise listing of villages and town-wise listing of wards/mohallas.

3.2.2 Identification of the catchment area of each primary/upper primary school located in each village or in each ward/mohalla in urban areas.

3.2.3 Survey of children belonging to the age group 6-14 years residing in a well demarcated areas like village, ward/ mohalla etc., identification of reasons of non-attendance and dropout and classification of non-attending school-going children into formal/non-formal category for schooling depending on the availability of time and level of involvement of the children in working situation.

3.2.4 Ensuring involvement of local community/ panchayet/educated youth/voluntary agencies in enrolment planning.

3.2.5 Demarcation of an area to be covered by a primary school complex around an upper primary school on the basis of habitation-wise, village-wise, ward-wise, mohalla-wise list of primary schools and NF education centres. Block Education Officer could undertake this exercise at block-level in collaboration with other local functionaries.

3.2.6 Area-level enrolment planning would involve formulation of micro-level statistical indicators like :

3.2.6.1 Gross Enrolment Ratio (GER)
3.2.6.2 Net Enrolment Ration (NER)
3.2.6.3 Age-Specific Enrolment Ratio (ASER)
3.2.6.4 Admission Rate.
3.2.6.5 Apparent Admission Rate.
3.2.6.6 Age-Specific Admission Rate etc.

3.2.7 Though enrolment planning will be initiated at Area-level eventually it will take the shape of multi-level enrolment planning as shown below :

Institutional level
Village/ward/mohalla level
School complex level
Block level
District level

3.3 Retention Planning

Planning for retention of children in primary and upper primary schools would involve :

3.3.1 Planning for quality improvement in the shape of reform in pre-service teacher-training, reform in inservice-training, modification in teaching-learning materials, and implementation of 'Operation Black Board' etc.

3.3.2 Retention Planning would require formulation of micro-level statistical indicators like transition rates from primary to upper primary level, retention rate, dropout rate etc.

3.3.3 Academic planning would involve reduction of school hours but increase in learning hours through adoption of child entred approaches like inquiry approach, play-way, activity-based methods, creative writing, peer group learning, experimention and creative use of singing, drawing, story telling particularly folk lores and folk arts.

3.4 Planning of Completion and Attainment of Minimum Level of Learning

Planning of completion and attainment of minimum level of learning would involve :

3.4.1 Formulation of micro-level planning indicators like promotion rate, repetation rates, teacher-pupil ratio, work-load of teachers etc.

3.4.2 Institutional planning.

3.4.3 Planning of evaluation.

3.4.4 Achievement Test results in various subject areas.

3.4.5 Progress of the child in various affective and psycho-motor areas.

3.5 Monitoring Strategies

3.5.1 The progress achieved in the areas of accessibility, enrolment, retention completion and attainment of minimum level of learning is to be monitored continuously for feed back to implementation agencies. DIET can play a vital role in monitoring the progress towards realisation of goals of UEE.

3.5.2 Both qualitative and quantitative aspects of the implementation of UEE as stated above should be monitored.

3.5.3 Monitoring agencies could be :

3.5.3.1 officials of education department posted at Block level/District level

3.5.3.2 School Complex

3.5.3.3 Village/Panchayet Education Committee

3.5.3.4 Block level Education Committee

3.5.3.5 DIET.

3.5.4 DIET should coordinate the monitoring activities and should define the specific roles and functions of various agencies .

3.5.5 Area level monitoring would be followed up by multi-level monitoring.

3.5.6 Systematic monitoring would require Information-base characterised by collection, recording, compilation, verification, dissemination and interpretation of data.

3.5.7 Quarterly and Annual progress reports are to be prepared.

3.5.8 Techniques of monitoring would include :

3.5.8.1 Meeting with parents/community members in order to persue the reluctant guardians/non-attending children in with a request to resume attendance.

3.5.8.2 Meetings involving various monitoring agencies for assessment.

3.5.8.3 Dissemination of records/reports.

3.5.8.4 Arriving at appropriate decisions.

3.5.9 Levels of monitoring various types of monitoring are :

3.5.9.1 Micro-level monitoring
3.5.9.2 Area-level monitoring
3.5.9.3 Multi-level monitoring.

EXERCISE FOR PARTICIPANTS

Prepare a questionnaire/for house-to-house survey of children belonging to 6-14 years age-group residing in a village/ward/mohalla etc. The responses of the questionnaire should highlight :

a) the reason of non-attendance/dropout.

b) classification of non-attending/irregular children into two groups : those who will be envolved into formal schools and those who will be envolved into non-formal education centres.

c) Availability of time for schooling.

2. Prepare a lesson plan following child-centred approaches in your area of specialisation.

3. Identify the minimum learning competencies which every child is supposed to acquire with reference to any one instructional unit related to any subject area. Also frame specific objectives of instruction on the basis of identification of minimum levels of learning.

4. Suggest suitable tools for evaluation of learners in cognitive, affective and psycho-motor domain areas separately.

....

b/s

Module No. 5

EVALUATION IN INSERVICE PROGRAMME

Dr. [illegible] Das

The Programme of Action (POA) of the National Policy on Education (NPE), 1986 has given a great deal of responsibility of teacher education to District Institutes of Education and Training (DIET). Giving particular importance to the training of elementary school teachers it has categorically recommended that DIETs should organise both preservice and inservice training programmes for elementary teachers and the personnel working in the non-formal and adult education programmes to raise their professional standard and status. It has further suggested that, DIETs should serve as evaluation centres for primary schools, adult education programmes and for their own programmes and activities. In this context, DIETs have tremendous and challenging tasks in formulatering and designing the need based continous and comprehensive evaluation programme both for elementary schools and for their own institutes. Therefore, the faculty members of DIETs should know how to evaluate objectively :

a) students' growth in formal and non-formal schools,

b) their own programmes.

For evaluation of students' progress their is a separate module entitled "Evaluation in Schools". This particular module attempts to discuss two important aspects of evaluation i.e.

1) Criteria of good evaluation programme.
2) Procedure of evaluation programme.

It is hoped that, the knowledge and understanding of these two aspects of evaluation will provide sound basis for developing action - oriented evaluation programmes. Let us discus the two aspect in detail.

Criteria of Good Evaluation Programme :

The criteria of evaluation emerge naturally from the basic asumptions about evaluation. They can be enumerated as follows :

a) Evaluation should be objective based.

The purpose of evaluating any instructional programme is to provide the means for determining, whether the programme is meeting its goals; i.e. the measured outcomes for a given set of instructional inputs match the intended or pre-determined outcomes (called objectives). Therefore, objectives become the starting point and play key role in the process of evaluation.

b) Evaluation should be a comprehensive process.

The major objectives to be appraised should include not only knowledge, skills but also attitudes, interests, ideals, ways of thinking, work habits and personal-social adaptability. Therefore evaluation becomes comprehensive when it includes the major values or objectives that the educational programme intends to achieve for each individual. Although it is difficult to asess all the objectives but attempts should be made to evaluate all important objectives as far as possible keeping in view the time, energy, and resources.

c) Evaluation should be a continual process.

Since the emphasis in evaluation is upon broad personality changes, it should be done regularly and continously. In recent years, evaluation is considered an ongoing process. Regular observation, rating and tests should constitute the appraisal procedures by which the instructor attempts to evaluate and decide the future course of action for guidance. This is a concept different from the older approach which considered assessment as an end product, rather than as a means for guiding progress or growth and looked upon measurement as an end-of-term activities.

d) Evaluation should be a dynamic process.

The approach of evaluation should not be static or rigid in nature. It should be dynamic and flexible in respect of tools, methods and frequency of data collection etc.

e) Evaluation should be a cooperative process.

A single person however efficient may not be competent to evaluate all the aspects of a programme or pupil's growth. Therefore the process of evaluation demands the cooperation of all concerned to do the work jointly and collectively.

These are the necessary conditions for a good evaluation programme. But these conditions are not sufficient for the evaluator unless he understands the systmatic procedure of evaluation. A comprenensive evaluation programme requires careful planning and effective administration. The procedure or steps for careful planning of an evaluation programme are discussed below.

Procedure of Evaluation Programme :

1) Identification of major objectives to be achieved. In any programme objectives should be spelled out clearly and these objectives become guideposts in both material developments

and evaluation. Keeping in view the importance of the programme and its duration the Programme Director should formulate the important objectives clearly which are attainable.

2) The second step is definition and classification of major objectives in terms of behaviour which whould characterize them. These definitions whould outline more or less specifically the knowledge, skills, understanding, attitudes, and interests that are to be achieved. For example in case of a content enrichment programme the objectives should stress on knowledge and understanding dimension of the content whereas in case of a developmental programme like development of unit tests or model lesson plans skill is considered to be more important objective.

3) The third step is the selection/construction of appropriate tools to assess the selected objectives. These tools may include tests, questionnaire, opinionnaire, check list, rating scale, observation and interview etc. If the standardised or published tools are not available, the evaluator should develop suitable tools following the specific rules and finalise them with consulation of experts.

4) The fourth step is administration of the tools to collect desired information. Keeping in view the objectives, the data should be collected. In most of the training programmes, the evaluation is done by administering a questionnaire to the participants at the end. The various aspects of the programme included in the

questionnaire may be planning, organisation, course coverage, quality of materials, method of transaction, resource persons, duration of the course etc. But this technique does not provide sufficient and valid data. Other techniques like observation, interview, testing in the field or mailing questionnaire can be used as follow-up action programme for getting valid and reliable informations.

5) The fifth step in the evaluation process is analysis and interpretation of data. Here the data are tabulated, analysed and interpreted meaningfully keeping in view the pre-determined objectives. The results so obtained after data analysis can be compred with the pre-specified objectives.

6) The last step is the make use of evaluation results, These results will not only serve as feedback but also provide the basis for making the valid judgements which in turn are used to take appropriate decisions for improving the various aspects of evaluation programme. Further these results can also be used for better administration, instruction, guidance and research purposes.

Evaluation is as old as education itself and serves as the quality control in any educational programmes. But its success largely depends upon sincerity, integrity, honesty and dedication of the members who are associated with the programme. It is hoped that, this module will provide new directions to the teacher educators of DIET who will design and formulate need based evaluation programmes in the context of their professional responsibility and accountability as emphasised in NPE (1986).

Activities

1) Formulate four major objectives of any one of your proposed training programme and define each major objective briefly in terms of participant's behaviour.

2) Develop appropriate tools to assess the above four objectives.

3) Suppose you have organised a training programme for primary school teachers on Minimum Levels of Learning on Science and Mathematics for one week. How do you evaluate this programme ?

****

b/s

Module No.: 6

CHILD CENTRED APPROACH/ACTIVITY BASED APPROACH

Dr. S.P. Anand.

Objectives : The module on Child Centred Approach helps the reader to :
- overview the prevailing practices in Education;
- understand the meaning of Child Centred Approach
- know the basis of Child Centred Approach;
- be acquainted with the essentials of practising Child Centred Approach in Education;
- illustrate Child Centred Approach with examples.

Contents : 1. Prevailing practices in Education
2. Child Centred Approach
3. Fundamentals of Child Centred Approach
4. Operational conditions :
    4.1. Child plays
    4.2 Teacher as facilitator of learning
    4.3 Appreciation of individual differences
    4.4. Teacher-pupil ratio
    4.5. Teachers' freedom
    4.6 Curriculum
    4.7 Teaching aids
    4.8. Dedicated teachers
5. Examples
    5.1 Maintainance of school complex
    5.2 Organization of co-curricular activities
    5.3 Classroom teaching
6. Illustrations
    6.1 Introduction of Multipication tables
    6.2 Language teaching
    6.3 Science teaching

1. Prevailing practices in Education

In the prevailing system of education, whatsoever happens, is determined by an authority in its own right. The authority may be vested in Government or delegated to the department of education or to some body else; but the teacher and the taught are the least authorised individuals to design the scheme of things in education. The teacher organises teaching as he is ordained from above. The student does but learn what he is made to learn by the teacher through approved methods of teaching. This renders the present system of education authority-centred.

Authority centred approach has come to manifest the inability of the system of education to deliver its desired results. Education has failed to deliver the kind of manpower to the society for which it has been specifically instituted. The system of education of the day, cannot claim to supply from its schools and colleges of learning, students who can be responsible citizens, keen learners, sincere workers and fine persons.

2. Child Centred approach

National Policy on Education, NPE (1986) [illegible] of the failing in the effectiveness of education of our [illegible]. In its Programme of Action (1986, p. 13), it has been [illegible] that :

> 'By making elementary education child-centred, we would be introducing a long-awaited reform in the system. The most important aspect of this reform will be to make education a joyful, inventive and satisfying learning activity rather than a system of rote and cheerless authoritarian instruction.'

Education is inherently a child centred process. It is organised for the desirable and healthy allround growth and development of one and all children. It evolves itself as per the requirements of the growth and development needs of children.

Child centred approach in education draws its sustenance from the needs, abilities, aptitudes and aspirations of children. In this system, teachers conduct themselves as group leaders and facilitators of learning for children. The entire spectrum of activities in child centred approach is so structured that it proves to be conducive for the allround development of each and every child.

In child centred approach, education becomes particularly child activity. In this approach, child is the pivot around which the process of education revolves. In child centred education, child is not left at the disposal of education, rather it is the otherway around; the system of education itself is placed at the service of each and every child.

3. Fundamentals of Child Centred approach

Child centred approach in education is based upon the fundamental tenets of the process of education :

- education means allround drawing out of the best in child and man, body, mind and spirit (Gandhiji),
- each and every child is a child who is considered to be capable of developing his potentialities and overcoming his limitations on his own (Rogers);
- Each and every child is a unique and worthwhile child who should be respected for his inter-intra individual differences;
- each and every child needs a guide to guide him, facilitate him to develop his allround personality in a healthy and desired direction;
- children as human beings have an inherent desire and need for achieving self-realization to establish themselves as perfectly perfect, competent and useful individual members of the society in which they are born.

Child centred approach in education is an approach in education which while accepting the given unique individuality of the child as a worthwhile useful personality, it assists him explore his assets and develop them to enable himself prove as an individually satisfying and socially useful entity.

In child centred education, the child is welcomed, motivated and encouraged to play a participant role with his teachers to build up his programme of learning. In this strategy, nothing is allowed to be imposed upon the child as a passive listener. In popular parlance, education is considered to be the twin process of teaching and learning. For teaching, teachers are held accountable and for learning, learners are made responsible. But, it is in the scheme of things in child centred approach in education, teachers and pupils are considered equally answerable to the net results teaching and learning.

4. Operational conditions

Child centred approach in education operates under some presumed operational conditions like the following ones :

4.1 Child plays :

In child centred approach, children are identified with the process of education. A programme of [illegible] is arrived at with the perfect understanding of the individual [illegible] needs of children. A very natural educational [illegible]. Teachers design a number of activities in which the learners learn while playing their childhood very joyfully. In that way, Child centred approach in practice takes due consideration of play in the development of children.

A spectrum of playful educational activities creates the network of an educational programme for children. Children learn while learning to play the games they love to play. It makes learning a child-like activity for the children in their schools.

In child centred approach, the play tendency of children is allowed to display itself. It makes their learning a meaningful learning. They play to learn and learn to play to reinforce their learning still further. Education of children is made as their game of learning to play it all the more enthusiastically.

4.2 Teacher as a facilitator of learning

In child centred education, the teacher is not supposed to assume the role of a 'master' of the children. He acts as a friend, guide and a philosopher in the process of their learning. For the education of citizens of tomorrow, the school provides a liberal atmosphere in which teachers and taughts enter into a phenomenon of healthy human interaction. The teacher as a group leader of students in child centred practices is considered to be a professionally competent facilitator of their learning.

The teachers in child centred approach begin their work with a thorough understanding of each and every child. The home conditions of children, their parents' socio-economic status and educational qualifications are needed to be known by teachers. Teachers have to take note of students' physical health especially their being free from any disablity in learning, because any deficiency in their seeing, talking, walking and understanding has to be taken very seriously.

Students' intellectual development, their aptitudes and attitudes, habits and tempraments are needed to be known by the teachers teaching them through child centred approach. The maintenance of cumulative records of children goes a long way to help teachers in this direction. Actually, teachers followin child centred approach do maintain up-to-date cumulative record of their children. This record goes to profile the achievements and failures of students. It highlights their developmental requirements. It may be said that progressively maintained and insightfully interpreted cumulative records of children lay the foundations of a child centred approach in education.

4.3 Appreciation of individual differences

In child centred approach, what is needed most is an allout acknowledgement of individual differences that exist among children. They have to be appreciated for their inter-intra individual differences which they inherit from parents or acquire them from environments. Children need be accepted with their strengths and weaknesses as such. They should be guided to develop their assets within the constraints of their limitations. There is nothing to be over-ambitious for the growth and development of each and every child. The approach should be to ensure an allround development of each and every child within the maximum limits of his individual differences.

4.4 Pupil-teacher ratio

Teachers having known the children on all accounts of their individual differences are well set to follow child centred approach in their teaching. If this approach is to be effectively pursued, there is a need to keep pupil-teacher ratio at a reasonable level. A high pupil-teacher ratio does not permit the teacher to follow child centred approach effectively.

4.5 Teachers' freedom

In child centred approach, teachers need be given a good amount of freedom to practise their own well-perceived styles of conducting themselves. However, for their guidance, teachers need be duly oriented and provided with well conceived guidelines. This should be left to the best of judgement of teachers themselves as to how they should enlist an active and willing participation of students in the process of their education. The headmaster of the school is also expected to evolve teacher-pupil centred administration in schools to add to the congenial atmosphere for child-centred approach in education.

4.6 Curriculum

The courses of studies or the curriculum to be followed in the child centred approach needs to be flexible. Teachers should be given a chance for their association in the development of programme of education. They should also be allowed a bit of freedom to make the choice of curriculum to be followed with a particular set of students to follow child centred approach in the real sense of the word.

4.7 Teaching aids

Child centred approach in education is an activity-based approach. This approach needs a good amount of teaching aids along with the space in which demonstration work can be done and educational activities can be taken. That way infrastructure of the school is required to be kept up to the mark.

4.8 Dedicated teachers

Child centred approach is an insightful approach on the part of teachers. That way teachers who are expected to follow the approach should be basically professionally trained and personally wedded to the teaching profession. Teachers cherishing no love for children or for the teaching profession can hardly be expected to pursue child centred apporach in their styles of functioning as teachers. Teachers of commitment dedication and of a mission in teaching profession can only be seen coming forward to practise child centred approach in education.

Child centred approach is a painstaking approach in pedagogy. Teachers need be well motivated to pursue this approach. In schools, men of sound mental health and professional competency can only pursue this child centred approach.

5. Example

Operation of child centred approach in schools may be cited with some examples as given below:

5.1 Maintainance of school complex

Maintenance of school complex and keeping its surroundings neat and clean is very important for an effective process of education. Towards the achievement of this end in schools, students' active and willing participation-cooperation should be effectively enlisted. Students' involvement in this aspect of school organization, helps them to identify themselves with the Institution of their learning. This serves as [illegible] for the education of children through an activity based approach in education.

A teacher through guidance can motivate the students to keep their classrooms neat and clean. In this campaign of cleanliness, students in their respective turns may clean and wash their classrooms daily in the morning. Similarly decoration of classrooms with students' prepared charts and diagrams help us to enlist students' participation in their self-education through activity based approach. Development of small flower corners on the available land near each classroom can also serve as a way of practising this approach. Community work programmes, social service campaigns in the vicinity of school complex help the students in their allround development for which they come to the schools.

In schools, the enlightened teachers can find many ways to practise activity based approach. Students' involvement in educational activities (each activity in school is considered to be an educational activity) can teach them what can't be taught to them by preaching or showering sermons on them in abundance.

5.2 Organization of Co-curricular activities

Co-curricular activities are the playful programmes of activity-based approach in education. These activities are presumed to be liked by the children. In child centred approach, these co-curricular activities need to be systematically planned and designed for the definite purpose of educating the children.

In the organization of co-curricular activities, teachers should leave much for the students to manage themselves. Let the students manifest their creative ability in creative activities in the school. They should not be dictated or

This is to say that 3 has been added twice, thrice, four times and so on. This is a multipication table of 3 which may be written as :

$3 \times 2 = 6$, $3 \times 3 = 9$, $3 \times 4 = 12$, $3 \times 5 = 15$

After giving them this practice, let us see some students may develop the multipication table of 4, 5 etc. If not, let us help them develop these Tables and remember them by heart.

6.2 Language development

A language book may not be taught from page to page by reading it out to the students by the teacher. Let the students read and they may be provided guidance for correct pronunciation. Let the students improve their reading ability by practice and improve upon their pronunciation by listening to their classfellows. Students themselves may be asked to spell out the meanings of what they read on their own. They should be encouraged library reading and to write essays and letters in their own words. Such practices can be introduced in schools for the development of language ability of students through child centred approach.

Students telling the stories, singing songs and giving talks on the topics of general interest etc. are examples of activities that may be introduced under activity based approach in the language development of children.

6.3 Science teaching

Teaching of Science can not be construed as a book reading activity in schools. It is essentially a discipline of knowledge which should be taught by activity based approach. It is best taught by demonstration and experimental methods. Students learn it well mostly in their self-engaged hobby clubs. Teachers should allow students to do their creative experiments in the science laboratories. They should discuss students' experimental designs with keen interest and recognition of their creative abilities. This type of interaction between the teacher and the taught doubly promotes the practices of activity-based teaching and learning of Science in schools.

Conclusion

Child centred approach in teaching is a very constructive scheme of teaching the children. It envisages a joint effort on the part of teachers and taughts in the process of education in schools. Students are made interested in and motivated for learning. Teachers act as the professional guides of students to organise their learning to useful ends.

Teachers love for children in abundance and students' desire to learn in plenty are the corner stones of success of child centred approach in education. In this activity-based teaching-learning strategy, an allround development of each and every child is attended to. Teachers need take sufficient pains wholeheartedly to realise the advantages of child centred approach in schools.

Self-exercise

After reading the module, answer the following questions:

1. What do you understand by authority-centred approach ?
2. On what tenets (beliefs) is child-centred approach based ?
3. How is child play related to child-centred approach in education ?
4. What is the role of the teacher in child-centred approach ?
5. Give three examples of pupil activities that can be organised in child-centred approach.
6. Give one example for teaching each of the following subjects by child-centred approach :

   a. Arithmetic b. Language c. Science
7. Prepare a lesson plan for teaching any topic of your choice to pupils of class III by child-centred approach.

Module No: 7

EDUCATION OF FIRST GENERATION LEARNERS

Dr. S.P. Anand

Objectives: The reading of this module, helps the reader to know about First Generation Learners for their :

- concept;
- family background,
- need of motivation for learning;
- educational needs,
- teachers' role in their learning;
- essential teaching-learning strategies.

Contents :

1. Concept
2. Family background
3. Motivation for Learning
4. Educational Needs
   - 4.1 Physical development
   - 4.2 Mental development
   - 4.3 Social development
   - 4.4 Emotional development
5. Teachers' attitude
6. Teaching-learning strategies
   - 6.1 Child centred approach
   - 6.2 Mastery learning

1. Concept

'No child is ineducable'; 'Education is the fundamental right of each and every child'; like the ones are the popular maxims of the day which have ushered in, 'Universalization of Education' as the latest momentous movement in the system of our Education.

Education enlightens our life. It brings about a revolution in the evolution of our style of life. Education is but very essential for the desirable growth and development of all of us. It makes a lot of difference when one is educated and when one is deprived of being educated. Education makes us individually satisfying and socially useful individuals. These, for the sake of illustration, may be cited as some of the salient messages of the movement of universalization of elementary education on which it has been founded.

In its programme of action, irrespective of a wide-range of individual differences in their socio-economic status, the movement of education for all children, intends to enroll them in formal or non-formal pattern of education. In its door-to-door complaign, the movement envisages reaching even the remote families who are still quite naive to the concept of education itself. In the programme of education, it has brought into prominence, the education of first generation learners. Before beginning the discussion of their education, the concept of first generation learners needs to be spelt-out.

The children, belonging to the families from where the children have earlier never been exposed to any kind of education for generations altogether, when they are brought under the purview of and given the advantage of an organised system of education for their allround growth and development, are identified as first generation learners.

The children, who have the privilege of becoming the first in themselves in their own respective illiterate families to receive a systematic education, are recognised as first generation learners.

First generation learners are the children whose none of the family members on record have ever been educated anywhere till now, and they are to be the first in their family traditions to receive a well-designed education. First generation learners happen to be the forerunners for ushering in an era of education in their respective families.

2. Family background

First generation learners are essentially the children of illiterate parents who in their entire lifetime have had never availed of any kind of a systematic education. These parents in their own turn might have remained uneducated because of financial constraints (poverty) of their respective parents who were unable to foot their expences required in their being educated. It could also be that social practices and rituals of their times along with their family traditions might not have permitted them to take advantage of the school facilities available to them in their school going days. Leaving aside these pertinent barriers, it could also be that parents of first generation learners could not get any kind of noteworthy education because of their living in far flung areas cut off from the mainstream of social life and they had virtually no access to any organization of learning worth the name.

Generally, the families or parents of first generation learners are economically poor, socially disadvantaged and culturally deprived. In most of the cases, families from the weaker sections of the community like that of scheduled castes, scheduled tribes and families of other backward classes make the family backgrounds of first generation learners. Briefly stated, first generation learners belong to academically backward families, whatsoever.

3. Motivation for Learning

To begin with, the first generation learners are never found to be intrincically motivated for having any kind of education. Perhaps on the other-hand, these children may be found to be cherishing a sort of apathy towards education. Their parents, too, have no inclination to send these children to the schools. All the more, first generation learners might be discouraged by their parents to cherish any love for education.

First generation learners as well as their parents are generally found to be not interested in any kind of education, whatsoever. They have yet to give a deserving place to education in their family culture. It may be that they may be thinking that education is not meant for them and they are not made for education. All the more, parents of such children may be having a negative attitude towards school, thinking that schools spoil the children. They loose control over children when they are sent to schools. They may hold the opinion that children will become useless if they are sent to schools. Till recently, family practices and traditions of first generation learners are usually found to be totally against their being educated. However, in some areas an awakening is being witnessed in such families regarding the utility of education.

The unhealthy notions about education cherished by illiterate, economically poor and culturally deprived parents may be based upon the fact that their children are also working as wage earners for the family. Children as well as their parents have an immediate future in sight without having any vision for any remote future. They have no high ambitions in life. They are very much contented in their own small world with small earnings and a self-contained vision of life as a whole. Their style of life carries no allurement for education at all.

Parents of first generation learners are required to be persuaded to send their children to the schools. They need an awakening for allowing their children to be educated in their own interest as well as in the interest of society as a whole. Parents and children need an assurance of the utility of education in their life. This is to secure the active cooperation of parents of first generation learners in the process of education for their allround personality development.

Parents need to be financially compensated for their children having stopped earning because of their going to the schools. Not only this, in some cases the expenses for the education of first generation learners may be required to be borne by someone or entirely to be exempted by school itself. These children need be provided with books, school uniforms and meals free of cost. The school in no way should pose a financial burden on the parents of first generation learners. Some such learners may be facilitated to continue to be wage earners along with their attending the schools. They may be allowed to come to the school in their off working or wage-earning hours. Or, schools may open earning avenues within the school campus itself along with their formal programme of learning. Vocational education has been accepted to be an essential aspect of the education of first generation learners.

First generation learners will be well motivated to learn when they are assured of earning while learning which eventually should lead them to place themselves in life as better wage earners and respectable members of the society.

4. Educational Needs

Education of first generation learners needs to be viewed in its true perspective. Education is altogether a novel experience for them as well as for their custodian-parents. It is to brin about a cultural revolution in the families of first generation learners.

It is accepted in principle that an effective process of education should revolve around the child itself. It should be designed befitting to the needs, abilities and aspirations of learners. It calls upon the designers of the education of first generation learners to strictly adhere to child-centred policies and practices. The scheme of education should be made fascinating to the learners concerned. It should be convincing to the first generation learners that education being processed for them meets their immediate as well as future life needs. Such a scheme of education for the first generation learners should earnestly attend to the following facets of their personality development.

4.1 Physical development

Physical development is said to lay the foundations of personality development. First generation learners need some fundamental lessons on physical development. They need to learn how to keep physically fit. They have to learn how to regulate their daily life to keep themselves physically healthy to do something worthwhile in life.

Family background of first generation learners may be taken as having told them nothing about right body gestures, postures and exercises. These children may not be aware of quality and quantity of food required by them to keep themselves physically alert and smart. Importance of adequate sleeping hours, working hours and hours of relaxation in the daily life of human beings is to be highlighted to first generation learners.

Because of having received no attention at home, first generation learners may need instructions in the school to save themselves from being handicapped in any way. If they have inherited some impairment or have acquired it, it has to be cured at the right earnest lest it should develop into some kind of disability for life for the concerned child. Health education has to be made a part and parcel of the education of first generation learners.

4.2 Mental development

First generation learners have no conducive educational atmosphere at home. Home does not serve them as the place of natural learning. They are deprived of congenial atmosphere/ surroundings of learning at home. This adversely affects and delays the development of primary mental abilities of first generation learners.

Impoverished learning experiences meted out to first generation learners at home keeps them deprived of enlarging their attention span. Their perceptual development remains, inadvertently halted. They acquire very little amount of language development in childhood at home. First generation learners, at home have no training for memory, retention and recapitulation. Most of the time, having been confined to a very small stretch of surroundings these children hardly develop themselves as keen observers. They lack the ability of making appropriate interpretations of what they happen to see. They have no knack of taking note of whatsoever they witness around them. They are not responsive to the situations they are concerned with. They lose subtle opportunities of learning on their own. On the whole, cognitive development of first generation learners has to be accepted as suppressed and depressed which needs to be given a helping hand for its due growth and development.

Potentialities for mental development of first generation learners should in no way be doubted and underestimated. There is no rationale for cherishing a biased attitude towards this aspect of their personality development. We may have to work a little bit hard to enable the first generation learners to be on the right path of their mental development. We should work with them with the belief that slowly and steadily, they will develop an analytical mind, inculcate a problem solving attitude, and love to have an insightful learning. This exercise has to be attempted at the earliest and there is no escape from it, whatsoever.

4.3 Social development

First generation learners need guidance for their social development, too. They come to school without having learnt much of the social-skills. School provides them the first opportunity to interact with a group of firends of their age-group. In School first generation learners are to be made interested in social learning to develop themselves as sociable members of the society.

How to make friends with their classfellows, play and work them without any bitterness among themselves is a lesson for social development. In a team, how to work with a team spirit, share the joys of team members and render a helping hand to one another - are the salient aspects of social development which the first generation learners have to be taught in school. We are basically social beings and are dependent upon one another in many ways - this has to be brought home to the first generation learners.

These learners need be given a broader view of life cutting across their limited sights of respective homes and villages. Our behaviour is regulated by social norms and disciplines - needs to be told to these naive learners. As being the members of the vast society- we are born in, we have social rights as well as responsibilities. That way, social awareness in all its facets has to be developed among first generation learners.

4.4 Emotional development

Emotional development may be defined as an individual's pattern of showing his emotions with his day-to-day behaviour. While responding to the given situations, how does an individual express his emotions adequately to the demands of the times, is an index of his emotional maturity in life.

First generation learners are not only deficit in mental and social development but their emotional development too can not be taken as satisfactory. They have to learn to express emotions very rightly in the routine conduct of their life. Emotions of love and affection, joy and sorrow, fear and anger etc. have to find a due place in their styles of interaction with their surroundings. These learners need be educated to make an appropriate combination of different emotions in their patterns of behaviour.

To facilitate emotional development of first generation learners, they need be exposed to and given a wide variety of life experiences. Not only do we have to take care of their physical needs (food, shelter and clothing), but their psychological and social needs should also be perly attended to. They should have a sense of security in their surroundings. There should be no reason for their feeling insecure in anyway. They should have sufficient independence to work independently for the development of their creative abilities. They need be helped to identify their own merits and to win recognition from firends, teachers and parents alike.

The satisfaction of basic human needs helps first generation learners develop self-confidence and self-reliance in themselves. It enables them to make intelligent choices, plans and adjustments in daily life. This kind of development ensures their emotional development.

In the scheme of things, for the education of first generation learners, their educational needs are their developmental needs. Their programme of education should revolve around the satisfaction of these needs. This will ensure the achievement of the very purpose of schooling the first generation learners.

5. Teachers' Attitude

School should accept first generation learners as potential learners. Teachers should accept them with a positive attitude towards them and on their part assure them a loving and warm affectionate treatment. First generation learners should never the least be considered by teachers as good for nothing fellows or at the most second grade learners. However, teachers should take them as exceptional children with special needs which require to be attended to exceptionally. In this context, first generation learners provide a challenging but rewarding situations to the teachers to make exceptional efforts for their education. It may be said that teachers of first generation learners need be exceptionally committed to these exceptional students to establish their effectiveness in teaching profession.

The unique individuality of each and every first generation learner should be recognised and respected by the teachers which matters a lot for these learners to come to the school, stay there and have the benefit of schooling for their healthy allround personality development.

Teachers of first generation learners for their success in teaching must develop personal equations with them. This personal relationship between teachers and taughts plays a crucial role in the process of education and in the context of first generation learners, it can not be made an exception. Teachers have to play a (seniors') role to earn the trust, faith and confidence of first generation learners to establish their personal rapport with them.

Teachers' attitude towards first generation learners reflects the attitude of school itself. Teachers' efforts are the efforts of school system for the education of first generation learners. Teachers have to develop and manifest a healthy attitude towards first generation learners if in anyway we are serious about their education.

6. Teaching-Learning Strategies.

As discussed earlier, educational needs of first generation learners, necessitate the development of teaching-learning strategies that should be based upon Child Centred Approach (Activity based approach) and Mastery Learning.

6.1 Child centered approach (Activity based approach)

Teachers are the best placed persons to evolve their essential teaching strategies for the education of first generation learners. Learners should be actively associated with the development of educational programmes for them. Actually, first generation learners should be helped for self-study and self-learning.

First generation learners should be helped to learn from their immediate environments. They should be guided in their intellectual exercises for their mental development. Their suppressed cognitive development need be given an open and liberal climate to unfold itself adequately.

While working together, playing together and organising their choicest playful activities, first generation learners need be encouraged and facilitated to learn something substantial for which no formal classes should be taken by teachers. Learners should be guided to guide their own learning by playway techniques. Child-centred programmes and teachers' guided learning activities in the school are found to be most useful for the education of first generation learners.

First generation learners are very much desired to be exposed to outside limits of their well-confined environment. Let them stretch their thinking a little bit, broaden their horizon of life and enlighten themselves with what is happening around them which had since long remained unknown to them. Educational tours, excursions, visits to exhibitions and [illegible] when these are organised by the school with an explicit objective of educating the first generation learners, serve them best for their allround personality development.

Latest developments in educational technology, make the task of organising child-centred educational programmes in schools still the more easier. Educational broadcasts through Radio and Television have made child-centred activities fascinating to the learners and we should take advantage of them for the education of first generation learners.

First generation learners in most of the cases, learn only in schools. Teachers take the entire responsibility of enabling them to learn. Home is not in a position and for that reason may not be expected to play much of its role in the learning of first generation learners.

It is but very essential that contents of studies for first generation learners should be correlated and associated with their daily life needs and interests. Their education should immediately make them convinced that they are involved in a sueful programme for the present as well as for the future life.

6.2 Learning for mastery

Mastery learning is a crucial strategy of teaching in the process of learning that needs to be practised while programming the education of first generation learners.

In mastery learning, teachers should plan out their teaching well in advance. No casual or haphazard style of teaching works out well in the strategy of mastery learning. In this strategy of teaching, learners are allowed to learn at their own rate of learning. They are not expected to be given a second or next unit of learning till they have acquired mastery over the preceding learning. Teachers have to make teaching quite an interesting one with teaching aids and illustrations. Post-teaching evaluation of students determines their level of learning. It is usually accepted to be 85 % to call it mastery level of learning on the part of learners. Each learner is facilitated to reach this mastery level of learning before the next step of the lesson is introduced in the class. Fast learners who comparatively take less time to learn, help their classfellows who require more time to learn. Teachers at their end resort to remedial and complementary teaching to enable each and every taught to learn very well what is taught in the class/school.

Pupil-teacher ratio should be kept reasonably manageable to enable teachers reach the students individually. The teacher in his individualised strategy of teaching has to be particular lest and child schould develop a feeling of failure in his learning. Learning of first generation learners has to be a slow process to begin with which must get momentum as the achievement level or the rate of learning of learners improves upon. Students' realization for making a headway in their learning augments their net pace of learning. As a feedback, students have to be told how much they have learnt and how much still remains to be learnt on their part. And for this, teachers have to monitor the progress being made by first generation learners as an essential exercise for them. Teachers may maintain cumulative records of academic and non-academic achievements of all the first generation learners placed under their guidance.

Teaching-learning strategies for first generation learners have to be carefully planned and meticulously pursued in schools. Well-planned programme of education in letter and spirit is more or less half-done for the education of first generation learners.

Conclusion

First generation learners are the first in their respective families to come to the schools. Their parents have also the first taste of sending their children to the schools. These children are the messengers of education in their homes who break the generation-long cherished tradition of remaining uneducated. They bring an era of educational culture in their families.

Educational plans and practices for first generation learners need be very thoughtfully arrived at. In the movement of Universalization of Education, first generation learners are the first and they should prove to be the last in their respective families to be known as first generation learners. The impact of first generation learners should not conclude to be the first and last in their generation but it should carry an all-time impact which should inspire the children of future generations, too.

First generation learners are deemed exceptional children in the process of education. They have their exceptional needs. Teachers of these first generation learners need be exceptionally competent to affect an effective programme of education for them.

* * * * *

Module No.8

MULTIPLE CLASS TEACHING

Dr.S.T.V.G.Acharyulu

This module will enable you to:

- understand the prevalence of single or two teacher schools and their need in the States/UTs of the Eastern region
- understand the problems associated with Multiple class Teaching
- understand the advantages of Multiple class Teaching.
- acquaint yourself with the methodology of curriculum transaction in schools having Multiple class Teaching.
- understand the problems pertaining to teaching-learning process in Multiple class settings.
- acquaint yourself with the techniques of classroom organisation and management in Multiple class situation.
- understand the need for preparation of teachers - pre-service and in-service for Multiple class Teaching.
- acquaint yourself with the strategies of effective supervision of schools practising multiple class teaching.

The single or two teacher school in India is not a new phenomena. Such schools existed in ancient India. From the vedic period to modern times they have continued their existence in some form or other. With the advent of Independence and the Constitutional provision of universal compulsory education for all children in the age group 6-14 years, single teacher schools were established in some of the remote and difficult forest and mountain terrains, island habitats and other inaccessible regions of the country.

Why Single or Two Teacher Schools?

Inspite of persistent efforts, primary schools could not be provided in all the 9,64,664 rural habitations in our country. There are still as many as 1,90,666(19.77%) rural habitations which do not have a school within a walking distance of one kilometer from the homes of children. In these sparsely populated areas it is not feasible to provide primary schools with several teachers. Although the single or the two teacher school is not the desired pattern, these have been established in the low density population areas. Whenever the population is low, there will be fewer children of any particular school going age and consequently the total number of children needing primary education would be rather small. In such situations, the single or two teacher school continues to be the only alternative.

It is necessary to keep in mind that in most countries of the world, single teacher schools do exist. It is not uncommon to find such schools in U.S.A., U.K., U.S.S.R., Canada, France, Germany and other European, African and Arab and Asian countries. In short, in most countries having habitats with a population of less than 300 or so there have been single teacher schools which cater to the primary education needs of children and in many countries they still continue to function.

Prevalence of Schools with Single or Two Teachers in The Eastern Region

In our country, out of a total of 5,29,392 primary schools 1,48,033(27.96%) are single teacher schools, 1,71,389(32.38%) are two teacher schools, 80,365(15.18%) are three teacher schools, 47,188(8.91%) are four teacher schools and 79,789 (15.07%) five or more teacher schools. Table No.1 gives the State-wise distribution of such schools in the Eastern region.

Table 1

Primary Schools in the Eastern Region with single, two three, four and five or more teachers

Sl. No.	State/ Union Territory	No. of Teachers in the Primary Schools						Total
		Zero	Single	Two	Three	Four	Five & Above	
1.	Arunachal Pradesh	4 (.42)	526 (55.25)	256 (26.89)	[illegible] ([illegible].00)	19 (2.[illegible])	66 (6.[illegible])	952
2.	Assam	0 (0.00)	8903 (34.41)	10646 (41.15)	3168 (1[illegible].24)	[illegible] (6.[illegible])	[illegible] (6.[illegible])	2587[illegible]
3.	Bihar	757 (1.47)	13303 (25.89)	23407 (45.56)	[illegible] (16.0[illegible])	[illegible] ([illegible])	[illegible]58 ([illegible])	51377
4.	Manipur	0 (0.00)	510 (18.50)	820 (29.74)	572 ([illegible].79)	[illegible] ([illegible])	[illegible] ([illegible])	2757
5.	Meghalaya	0 (0.00)	1969 (53.33)	1046 (28.33)	35[illegible] (9.62)	[illegible] ([illegible].87)	[illegible] (4.[illegible])	36[illegible]
6.	Mizoram	0 (0.00)	1119 (11.84)	273 (27.16)	233 (23.18)	177 (17.61)	[illegible]03 (2[illegible].20)	1005
7.	Nagaland	0 (0.00)	42 (3.71)	132 (11.67)	168 (14.85)	216 (1[illegible])	[illegible]73 ([illegible]0.[illegible]6)	1131
8.	Orissa	200 (0.59)	14112 (41.29)	8746 (25.59)	6475 (18.94)	2253 (6.[illegible])	392 ([illegible].00)	34178
9.	Sikkim	0 (0.00)	21 (4.49)	67 (14.32)	88 (18.80)	78 (16.67)	214 ([illegible].73)	468
10.	Tripura	1 (0.05)	145 (7.52)	512 (26.57)	509 (26.41)	[illegible] (1[illegible].[illegible]3)	455 ([illegible]3.61)	[illegible]
11.	West Bengal	2 (0.00)	1679 (3.46)	14065 (29.03)	13954 (28.88)	9408 (19.42)	9308 (19.21)	[illegible]8456
12.	A&N Islands	0 (0.00)	41 (23.16)	43 (24.29)	31 (17.51)	19 (10.73)	43 (24.29)	177
	All Eastern Region	964	41370	60013	33928	17997	17721	171993
	All India	2628	148033	171389	80365	47188	19789	529392

Percentage of Teachers in Schools are given in parentheses.

Source: Fifth All India Educational Survey: Selected Statistics as on September 30, 1986, NCERT, New Delhi, Pages.82-83.

Curriculum Transaction in Multiple Class Teaching

In most of the countries primary school curriculum is supported by a list of what are called 'minimum learning competencies'. These are usually analysed into objectives relevant to each class level. The methodology to be followed to achieve these objectives are also indicated.

The major problem of the teacher in a single or two teacher school concerns the planning of his work. He has to plan his work in such a way that the students of different classes are purposefully engaged in activities and study. Most teachers in these schools are indecisive about curricular transaction - specially, what to teach and how to teach ? These teachers tend to use methods of teaching and instructional materials which are designed for the ordinary primary school classroom situation to their own multiple class situation. Another major problem for the teacher is the absence of individualized instructional materials for use with students in multiple class teaching. Likewise, there is also the need for developing tools for continuous evaluation and diagnostic testing. Such an assessment would help the teacher in understanding the progress of each student and for planning remedial work in each subject.

- How do you help teachers in evolving methodologies of teaching suitable to multiple class teaching ?
- What instructional materials such as work books, self study materials, self assessment materials etc. do you think would be helpful ?

Problems of Teaching Learning Process in Multiple Class Teaching Contexts

The following are some of the problems related to the teaching learning process:

- The tendency of teachers to work with multiple classes as one group without taking into account the special needs and developmental stages of the learners.

- Teachers lack training in handling multiple class situations and they are often too casual in teaching.
- Over-emphasis on completion of textual lessons.
- Insufficient attention to gifted and slow learners.
- Assigning and correcting of home work of students of different classes.
- Insufficient time for health and physical education activities, creative arts and cocurricular activities.
- Problems of individualizing instruction in multiple class situations.
- Absence of instructional materials and A.V. aids suitable for use in multiple class teaching.
- Frequent interruptions and distractions in multiple class teaching.

The above are only some of the problems and the list could be even more. These problems merit our attention.

- How would you help the teacher to face these problems ? List out your ideas and suggested activities.

Classroom Organization and Management in Multiple Class Settings

Classroom organization and management is as important a component as time budgeting in multiple class teaching. Unlike the regular primary school, in a single or two teacher school daily or weekly time-table is prepared keeping in view the load of the teacher, the various activities to be assigned to the students, the classes and activities to be managed by monitors, the facilities available within the school etc. Normally, the following are taken into account in preparing the daily/weekly schedule:

- allocation of periods to subjects in terms of the weightage given in the curriculum.
- each period of 45 minutes has 15 minutes of direct teaching by teacher, 15 minutes of assistance by monitor/voluntary teacher, and 15 minutes of self-study by pupils.

- activities planned to be mostly based on textual lessons.
- cocurricular activities
- health and physical education activities.

Flexibility characterises the time-table in a single or two teacher school where multiple class teaching goes on.

- What timings would be suitable ? Should there be morning and afternoon sessions ?
- Prepare a daily/weekly time-table and tryout.

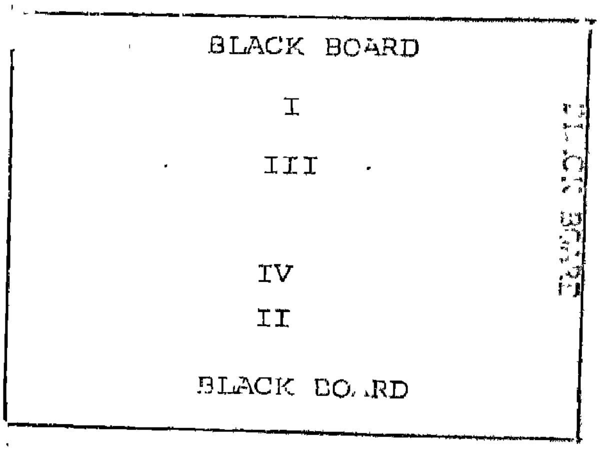
Seating Arrangement and Combining of Classes for Multiple Class Teaching

The seating arrangement for multiple class teaching is different from the usual arrangement one sees in a primary school. The seating arrangement takes into account a number of factors. These include:

- availability of space.
- combination of classes for teaching and other activities.
- students comfort and adequate lighting.
- visual and hearing problems etc., of students.
- Minimisation of noise distractions etc.,

There are no prescribed rules or standards for combining classes or for seating arrangement. The seating arrangement as well as the combination of classes may vary from one activity to another. Usually non-consecutive classes are grouped together on the assumption that the students of higher classes are capable of independent work while students of lower classes depend upon teacher assistance. What ever the combination of classes used and whatever seating arrangement may be followed the most important thing is to train children in self-discipline.

The following is an example of seating arrangement:



A teacher in a single or two teacher school, by virtue of his own experience over the years may use class groupings which are found to be good for various activities related to the curriculular or co-curricular domains.

- Suggest and tryout-class groupings for curricular and co-curricular activities.
- What sort of seating arrangement would you use if the school has - (a) only one hall, and (b) two rooms ?
- How do you manage instruction in other classes when you are busy teaching in a class

Developing a Climate for Learning

Most children in our rural areas have no pre-school education. Therefore, it is desirable that the teaching in classes I and II is informal for a few months. Story telling games, play way activities etc. may be planned to generate, promote, and sustain school readiness in children. These activities should involve more and more of pupil participation so that they develop listening comprehension, speech articulation, conversational and other basic skills. Actual Reading, Writing and Arithmetic can be taken up as soon as children become regular in their attendance.

Evaluation of Pupil Progress in a Multiple Class Teaching Context.

In MCT situations, the students are made to understand what to learn and how to learn. Students are given clear cut instructions as to what they are to do and what is expected of them. Timely diagnosis of student weaknesses and continuous monitoring of student's work is important for reinforcement, feedback and remediation. Remedial approaches in MCT contexts include special instruction for removal of doubts and difficulties, additional exercises in areas where students are weak, attachment with bright students or senior students, and provision of self-learning materials.

Fostering a Positive attitude towards MCT

The level of parental literacy of children in the single or two teacher schools is rather low. They often fail to the relation between education and future jobs for their children. Children also understand that their parents are not keen on their education and so absent themselves on minor pretexts of assisting parents in their work. Inability of parents to provide textbooks and stationery adds to the poor performance of children at school.

Multi Class teaching is seen by many as undesirable, although in terms of pupil numbers it is a necessary alternative to single class teaching. How to generate a positive attitude towards Multiple class teaching ? The following are some of the ways to generate favourable attitude towards Multiple Class teaching:

- Convince parents that MCT is not inferior to single class teaching.
- Publicise the results of multiple class teaching
- Make teachers realise that teaching in multiple class situation is not more difficult than teaching single class if they possess the basic skills in the art of multiple class teaching.
- Ensure that the teachers teaching in multiple class situations have as much status as those teaching in ordinary primary schools.
- Convince teachers that their posting in a single or two teacher school is not a punishment, rather a recognition of the competence

Pre-service Training of Teachers and Multiple Class Teaching

As it is, there is no provision for special teacher training to meet the needs of single or two teacher schools. There are primary teacher training institutions which prepare primary teachers and their teacher education programmes, by and large do not include multiple class teaching methods. Very few provide some theoretical instruction about single teacher schools, multiple class teaching and non-graded schools. Most instituions, however, do not expose their student teachers to the single or two teacher situation even for a short duration or for practice teaching. Consequently, the teachers coming out of these institutions have no practical experience in handling the classes when appointed in such schools.

- Should multiple class teaching be offered as an area of specialization like 'School Administration', 'Guidance and Counselling' etc.
- How do you expose student-teachers to multiple class teaching situations ?

Inservice Training of Teachers and Multiple Class Teaching

The purpose of inservice training for primary teachers is to enable them to keep pace with the developments in the content and process of education. Inservice teacher training programmes for primary teachers are organized in every State every year. But such programmes for single/two teacher schools are extremely rare if not non-existent. There is a great need for inservice programmes for teachers in single or two teachers schools. Such programmes should be in areas such as;

- Multiple class teaching
- Classroom organization and management
- Preparation of instructional materials (including low cost or no cost aids, self-learning and self-evaluation type materials, work books, activity sheets, teachers guides etc.)

- Continuous comprehensive evaluation of pupil progress
- Use of community resources both human and materials.
- Teaching schedules suitable for multiple class teaching
- Minimum learning attainments and their assessment.

- What other inservice programme would you suggest ?
- How do you ensure that the inservice programmes are need-based ?
- What follow-up action would you propose ?

Mere provision of inservice training to teachers of single or two teacher schools is not enough. We need to evaluate the performance of teachers who have undergone such inservice training. It is also necessary to strengthen the supervision of such schools so that we are in a position to plan need-based inservice training programmes in areas where deficits are noticed.

Strategies for Supervision of Multigrade Schools

Supervision of single or two teachers schools is rather scanty. The reasons include remoteness of schools, difficult terrains, absence of transport facilities, etc. Very often the supervisors themselves are not exposed to these school situations. There is a need to orient supervisors on the functioning of the schools, multiple class teaching strategies, problems faced by teachers in Multigrade schools, community involvement and parental participation in school programmes. It is a good idea to have inservice programmes for supervisors along the same lines as those conducted for teachers of multigrade schools.

Advantages of Multigrade Schools

Single teacher schools, inspite of a number of problems associated with them, have certain definite advantages. They are the only alternative to education of young children in certain regions of the country. Grouping together children of difficult classes, ages and abilities as practised in

Multigrade schools have merits. It lays the foundations of community living - It develops in children the habit of working on their own through participation in self-learning situations - Children learn to display a high sense of responsibility - The workshop like organization of classes calls for active participation of pupils. As the children are in contact with only one teacher over a period of years, a strong teacher-pupil relationship is developed - The organisational structure and the flexible nature of the time-table are such that they enable the pupils to learn at a rate suited to their needs and abilities - Teacher has a tremendous opportunity to individualise instruction.

- Can you think of other advantages ?

In the context of universalization of elementary education, it is necessary to strengthen these schools. Equally important is the provision of competent teachers for these schools. The DIETs in our country have to become more sensitive to the needs and problems of schools where multiple class teaching is the only alternative.

****

Module No. 9

DEVELOPMENT OF LOW COST/NO-COST IMPROVISED TEACHING AIDS

Dr. K.S. Rao

Overview :

We are living in an era of communication technology and to talk of low cost and inexpensive teaching aids for classrooms is ironical. In our country 80 percent of the population live in villages and the schools located in these villages do not have even the minimum facilities and funds to purchase equipments needed for classroom instruction. If the classroom teaching is to be meaningful, low-cost aids have a lot of relevance and utility. Even the so called developed countries stress the need for use of inexpensive teaching aids made out of cheap and common, materials and to share the experiences on the development of low cost education materials, so essential in any country. It is essential that teachers should know how to prepare, or procure, use and evaluate low cost aids so that their classroom interaction is more meaningful and effective.

A young child learns more when he is actively involved in the learning process. Children take keen interest in play materials and are inquisitive to learn about the materials they see and observe in their immediate environment. When a child picks up a toy, he touches it, looks at it, moves it and plays with it. Through his spontaneous activity, a child gets his first understanding of the environment. The preparation of inexpensive study or teaching materials with his own hands, lays necessary foundation on which the child's development and achievement is built.

This module attempts to present a list of waste materials available and the teaching aids that can be made out of them.

Objectives :

After completion of this module, you will be able to

1) identify the available materials in the local environment for preparation of simple aids;
2) devise ways and means to procure the teaching aids for class teaching;
3) appreciate the value of improvised aids in education;
4) list the resources and materials for low cost aids;
5) plan the procedure for developing low cost teaching aids;
6) design a plan to involve pupils for preparation or collection of inexpensive teaching aids.

A. Terminology :

How do you define improvised aid ?
What is a low cost teaching aid ?

Improvised aid is a term which refers to aids prepared with simple materials, costing very little, by involving the children and the local artisans. Any device that substitutes the normal equipment or apparatus and serves to clarify a concept can be termed improvised aid. For example you prepare a tin can steam engine with razor blades and a metal tube that serves the purpose to explain the principle of steam engine, we can say it is an improvised aid. A low-cost material is any material that is readily available in the environment at low or no cost. The concept of low cost teaching aid arised out of the use of locally available materials involving the local resources and technology. Thus the characteristics of low cost aids are :

1) it is made out of waste material,
2) it is cheaply available,
3) it is replicable,
4) it is made by teachers, pupils and local artisans,

5) it does not involve any machine to operate and
6) it involves the interaction of the teacher with the school community.

B. Need for Low-cost Teaching Aids :

Let us examine the need for using the low cost aids. If you think leisurely, you may recall many situations in the day-to-day teaching where you might have felt the need for teaching aids to explain the abstract concepts or ideas in your subject matter. There is a saying that "One teaching aid is worth a thousand words".

The National Science exhibitions organised annually by NCERT have proved to be a good way of motivating and encouraging children and teachers to produce low-cost educational materials. At the state level, similar type of activities are conducted by the State Institutes of Education, SCERTs and Educational Technology cells. By organising workshops and exhibitions at the district, state and regional levels, these institutions are promoting and encouraging the development of low-cost improvised teaching aids. Some commercial agencies are also producing cheap and inexpensive educational materials such as games, toys, models etc. As the school budget does not permit the schools to purchase any equipment whether low or high cost, there is an acute need to encourage resourceful teachers to imrpvise teaching aids from available local reources.

C. Importance of Low-cost Aids :

1) Economic importance : The preparation of low cost play materials and aids could contribute towards the school becoming self-sufficient.

2) Educational importance : For better understanding the coordination of hands and head is important. The coordination of hands and head and the over all confidence that pupils acquire by preparing some teaching aids may lead to develop some creative talents among pupils. Children experience the thrill and joy of having created something which gives them a sense of achievement.

3) Social importance : When the teacher involves pupils in collection and preparation of low cost aids, the children develop love for manual work and labour. They work in a team and develop the spirit of cooperation.

D. Can you identify the low-cost materials ?

The low-cost or no-cost materials that you come across in the local environment are wood pieces, packing cases, stones, fused bulbs, wires, seeds, grains, empty match boxes, cotton waste,, card board, plywood, tin sheets, powder tins, bottles, marble, clay and coconut sheels. The above list is not exhaustive and can include a host of other waste materials that are normally available in the rural or urban environment. Low cost aids include visual charts, pictures, posters, models puppets etc. prepared by the teacher and pupils.

Activity - 1 :

Collect all the waste material that you can find in your immediate environment which you think can be used to devise low cost teaching aids. Note down the source from which they have been collected.

E. Categories of Waste Materials :

We can broadly categorise the resources for low cost teaching aids according to the kind of source from which the material is available in nature :

1) Wood	: Scraps of boxes, wood pieces, bamboo sticks, plywaste, tooth picks, cane.
2) Metals	: Tin, aluminium cans, metal caps, sheets, iron wires, rods, bicycle spokes, powder tins etc.
3) Animal and vegetable materials	:Bones, feathers, skin,seeds, grains, shells, fruits, coconut sheels, fibres, tree bark etc.

4) Cellulose : Newspapers, corrugated sheets, card board, cotton, wool, masonite, sand paper, paper plates.

5) Earthen materials : Clay, cement, plaster, stones, marble.

6) Other materials : Rubber tubing, sheets, plasticin, plastics, glasspanes, light bulbs, tubes etc.

Activity - 2 :

Categorise the materials collected above in Activity 1.

Activity 3 :

Using the materials collected by you devise a small teaching aid. Give brief out line of procedure and materials used (indicating quantity).

Low-cost Teaching Aids :

1. Wood Materials :

Cloth clips dressed in crepe paper or cloth make amusing dolls. They can be dressed up to show the costumes of different people or of familiar characters. These figures can also be used as stick puppets or in shadow plays.

OR

Boxes: Two or more orange, apple crates nailed together and painted or papered make a working table for assembling materials or show a demonstration. To preserve specimens or exhibits, two big boxes can be nailed sidewise. Cigar boxes, chalk boxes etc. are shaped as plates and can be used to paint pictures, alphabets, and numericals for language learning, story board and simple arithmetic. Small packing cases are used to prepare dio rams. Geometrical shapes, display boards, frames and holders for lenses can be made out of waste wooden boxes.

Spools : These are used as wheels and rollers for toys, dolls, etc. as pulleys and animals. Spools cut into half serve as knobs of doors, handles etc. Spools glued to a flat base can make a test tube holder or a pen stand.

2. Metals :

Metal ladles are used as candle holders and wall cases. Typewriter spools or film roll spools provide wheels for toy carts and dolls. Wires, nails and bicycle spokes form a part of any toy making activity. Science models and improvised apparatus are made by using empty fruit juice cans, caps, and flexible metallic wires. Metal caps nailed to boards in patterned clusters make interesting display of numbericals, alphabets, musical instruments, holders etc. Jingle sticks are made from bottle caps by hammering the tops flat and nailing three or four of them loosely to a small wooden paddle.

3. Animal or Vegetable sources :

Bones and horns can be carved into shapes of various animals, trees, rings and school decorative articles. Fish scales can be used to a variety of pictorial uses. The scales can be coloured and pasted into hand-drawn figures to depict different costums. Feathers and shells are used to make models of animals, toys, and other docorative items. Seeds with cotton make nice dolls or different shapes of animals for teaching elementary level science.

4. Paper :

Corrugated paper and paper bags can be cut, shaped or rolled into various animal and geometric shapes. Paper bags stuffed with shredded cotton or paper make interesting dolls. One can prepare a globe or paper - mache masks.

Activity - 4 :

Soak overnight in warm water small bits of newspapers. Pour off the excess water until the paper is nearly dry and add one eighth part of liquid glue. The product can then be moulded like moist clay to any shape one desires. When dry it hardens and can take colours or paints. Paper plates can be used for making puppets, masks etc. Crepe paper is largely used for making bags, table covers, figures, artificial flowers, lampshades and a host of other materials, as it can be stretched, pu;led, twisted, rolled into any kind of shape. In the preparation of diogramas laminated paper is of great help as the basic material for scenic background and elevated landscapes.

5. Clay Materials :

Soft mud, clay, clinkers, and rocks find enormous use in aquariums or vivariums. Clay is used for making dolls, figures, puppets, fruits, vegetables, landscapes or dioramas. Plaster of Paris, and adhesives are used for making wall plaques, relief maps and figures. The procedure is to cast a mould, dry it and lightly sketch the intended design on the surface. Crave this design in relif by removing the parts of the surface that are not in the pattern. Sand paper is used to smoothen it and then it is painted with required colours.

6. Other Materials :

While preparing any low-cost material for teaching purposes, no other material finds as extensive use as the broken pieces of glass, plastic sheets and rubber articles. These materials are required for joints, connectiors, and acting as a base or separating walls. Ink and horlicks bottles with glass tubing serve the purpose of Woulfe's bottle for carrying out simple experiments in general science.

Thus by a little initiative and imagination one can convert any waste material available in the environment into useful and educationally worthwhile teaching aids. Some of the low cost aids that can be prepared by the teacher for classroom teaching, whether science or humanities are listed below :

Activity - 5 :

Suggest suitable activities for each of the following.

1) Primary colours
2) Optical illusion
3) Globes and relief maps

4) Dioramas
5) Geometric shapes
6) Hot and cold air currents
7) Newton's colour disc
8) Periscope
9) Persistence of vision
10) Air pressure, compressed air
11) Fir extinguishers
12) Simple printing machine
13) Language aids
14) Thumbtack models
15) Eclipses, Day and Night
16) Slide projector
17) Display bords
18) Steam engine
19) Time Clock
20) Grammar Clock
21) Puppets and dolls
22) Archimeds' Principle.

Sources of Information of Low-cost Teaching Aids :

The names and addressed of some institution, doing pioneering work in this area are :

- Central Institute of Educational Technology, N.C.E.R.T., New Delhi.
- Vikram Sarabhai Community Science Centre, Ahmedabad (Gujrat).
- Kishore Bharati, Palia Piparia Village, Hoshangabad (M.P.)
- Social Work and Research Centre Tilonia, Ajmer (Rajasthan).
- Mitraniketan, Vellanad, Trivandrum Dist. (Kerala).
- State Institute of Educational Research and Training Udaipur (Rajasthan).
- Neo Creative Educational Toys and Aids, Pondicherry.

Other Activities :

1) Prepare a plan of action to develop 5 teaching aids and list the objectives, materials required, and the topic or subject for their use.

2) Identify the institutions and resource centres in your locality from where you can get help for developing low-cost aids.

3) Suggest ways of sharing the physical facilities and materials collected by you with other schools in the neighbourhood.

REFERENCES

1. NCERT - 'Inservice Teacher Education Package' for PMOST, 1988.

2. Laybourn and Bailey - 'Teaching Science to the Ordinary Pupil'.

3. Wittich and Schueller - 'Audio Visual Materials'.

====

b/s

Module No. 10

INSTITUTIONAL PLANNING

Dr. Saroj Pandey

Introduction

This module aims at developing in DIET personnel an insight into various aspects of institutional planning and enhancing their ability to undertake various problems of their institutions, and solve them at the institutional level, utilizing institutional resources.

You are aware that educational planning has been going on in our country since independence, yet it has not yielded the desired result. We are yet to achieve the basic constitutional promise of providing free and comoulsory education to each and every child upto the age of 14 years. Drop out rate among school going children is alarming, wastage and stagnation is high and most of the girls are out of school. Education is always being criticised as irrelevant to the needs of society.

India is a country with vast regional disparities and diversities. The needs and requirements of a school situated in remote interior of eastern region may entirely be different from a school in the southern or western part of the country. Even in the same region people have different habits, needs and priorities. Our planning system is highly centralized in the sense that all plans are prepared by the centre and implemented by the states. It has been mainly an inverted pyramid-everything trickling from top to bottom. The individual teacher and institution has completely been forgotten in this process. The needs of individual insituation is that which is felt by the planners and not by its teachers or principal or students, parents and local community. They have no say in the process of planning. Principal and teachers are, there only to 'accept' and 'implement', without knowing the 'why' and 'how' of the plan.

Hence decentralization of planning is essential for maximum utilization of existing resources and effective functioning of educational institution. Each and every institution should prepare its own plan on the needs felt by its principal, teachers and students, utilizing its own resources. Institutional planning will therefore, make the whole educational planning in the country more realistic. It will give right direction to the educational planning in the country i.e. the upward direction - 'from bottom to top' Institutional planning is, thus, a planning of the school, by the school and for the school.

Objectives

This module will set you thinking about institutional planning. After completion of this module you will be able to -

1) Precisely define the concept of institutional planning.
2) Realise the importance of institutional planning.
3) Identify the needs of institution and problems faced.
4) Identify some institutional needs and determine the priorities among different needs.
5) Assess the available resources and constraints.
6) Formulate project for institutional development.
7) Understand the steps involved in institutional planning.
8) Evaluate the progress of institutional plan.
9) Utilize the feedback from an institutional plan for formulating a new plan, or revising the same plan.

Concept of Institutional Plan

By now you must have developed the idea that intitutional planning is democratic decentralization in the field of educational planning in the true sense. School is an unique human institution. It exists to achieve certain aims and ideas of the community. Each school has its own specific aims and objectives, its own priorities and needs, and its own specific way of solving its problem. It is a systematic approach to prepare comprehensive plans for educational development at the institutional level. The concept of institutional plan envisages a programme of development and improvement by an educational institution on the basis of felt needs and resources available or likely to be available with a view to improving the school programme and school practices. The plan may be of a longer or shorter duration.

Thus the institution has to identify its own problems, determine its own priority of needs and find out its own solution by utilising available local resources.

Institutional planning is a cooperative effort of all the participants of school organization - the principal, teachers, students, parents and local community.

Activity Sheet No.1

1. Define the concept of Institutional planning.	Collect
2. Discuss the need of institutional planning.	Collate
3. Write a few sentence about the advantage of decentralized planning over centralised plan.	Discuss

Objective of Institutional Plan

An institutional plan specifically aims at :

1) Qualitative improvement of the school organisation.

2) Reduction of the incidence of wastage and stagnation drop-out among school children, faculty improvement, general administration, school building and equipment etc.
3) To provide educational facilities for the growing population in different age-groups in the localities where institutions are located.

Requisities of Institutional Plan

While making an institutional plan you should keep the following points in mind:

1) The plan should be prepared on the needs of the school as indicated by school staff.
2) It should utilise the resources available in the school and community to the maximum extent.
3) It has to be a cooperative venture of the community, mamagement, school staff and the students.
4) It should be goal-oriented.
5) It should aim at school improvement as well as school development.
6) It should not be rigid rather it should be continuously developing.
7) It should result in improvement and motivation on the part of teachers, students, community and the management.

Activity No.2

1. Identify the needs and its priorities, of your institution.	Collect
2. Find out the objectives of any one of these institutional needs.	Collate
3. List the essential characteristics of institutional Plan.	Discuss

Steps of Institutional Plan

The following steps are involved in institutional planning.

1) Survey the felt needs of school and resources available or likely to be available in the school. Institutional planning may be needed in one or more of the following areas.
    - i) Student services;
    - ii) Faculty improvement programmes;
    - iii) Building and equipment;
    - iv) Extension and other programmes;
    - v) General administration; and
    - vi) Financial management.
2) Determine the priority of needs and work out alternative choices in the light of assessed resources and future needs.
3) Formulate and prepare the plan.
4) Execute the plan within resources and with maximum of efforts.
5) Evaluate the plan for improvement.

Activity No.3

Give a list of steps necessary for institutional plan keeping in view the need of your intsitution identified by you earlier.	Collect Collate Discuss

Process of Institutional Planning

By now you have got the idea that institutional plan is a cooperative effort of the principal, teachers, students, parents and the local community. The needs should be identified by all and available local resources should be utilized to achieve the plan objectives. Now the question is how to make the actual plan? How to formulate a project on felt need of the institution? There are three stages in process of preparing an institutional plan:

a) Normative stage: It involves determining what should be done i.e.
   i) Establishment of aims and objectives.

b) Strategic stage: It involves what can be done i.e.
   ii) Identification of needs and problems.
   iii) Assessment of resources
   iv) Determination of priorities
   v) Formulation of plan.
   vi) Finalization of plan.

c) Operational stage: It involves actual implementation of plan i.e.
   vii) Work plan for implementation
   viii) Monitoring and evaluation of plan.
   ix) Revision of plan.

Activity No.4

Suppose you want to overcome the problem of drop-out in your school. Prepare a list of activities and programmes you would initiate in order of priority.	Collect Collate Discuss

Revision or evaluation of the plan is very important. It should be a continuous process and the plan can be modified accordingly. The experiences gained from one plan may be utilized as feedback into planning at a latter stage. Evaluation should be done by the school authorities themselves, but sometimes evaluation by an external authority may also be required.

Activity No.5

After completion of the module, answer following questions as recaptualation exercise:

1) What is an institutional plan?
2) What steps should we take to prepare an institutional plan?
3) What are the characteristics and advantages of institutional planning? Illustrate with suitable examples.
4) Make an institutional plan for your institution.

Module No.. 11

ACTION RESEARCH

Dr. S.I. [illegible]

Objectives: The module on Action Research helps the reader to ;

- know what is Research ;
- understand the importance of education and research
- have the clear perception of Action Research in Education ;
- know the importance of Action Research for teachers as well as for the process of education ;
- spell out the strategies for the motivation of teachers to undertake action research projects ;
- cite specific problems which can be taken up by teachers as Action Research projects.

Contents :

1. Research
2. Research in Education
3. Action Research
4. Action Research and Teachers
5. Motivation of Teachers for Action Research
6. Problems for Action Research
7. Steps in Action Research
   7.1. Statement of the Problem
   7.2 Hypothesis
   7.3 Sample
   7.4 Tools and Techniques
   7.5. Data collection
   7.6 Analysis and Interpretation
   7.7 Practical implications
8. Suggestive studies

1. Research

Tradionally, research has been acknowledged as an area of intellectual exercise in the pursuit of establishing fundamental truths of life. It is considered to be the domain that is exclusively meant and that has been reserved for intellectuals only. Research, as such, has been virtually viewed as the seat of wisdom.

Research is a thoughtfully speltout, systematically designed and very intelligently conducted creative activity.

In modern times, research has become a part and parcel of each and every human engagement. Research and Development (R&D) unit constitutes an important wing of each and every well established institution, organization and establishment. There prevails a research culture in almost all departments of present day life.

Research leads to innovations. Research results in new theories and discoveries. Efficiency is enhanced and quality of production is improved upon by research programmes. Civilisation of the day in all its facets is accredited to research of one kind or another.

Research is an insightful learning. It is a passion for learned people. A creative mind finds its real life in its research programme. In the quest of achieving excellence in human life, research is a momentous movement of research-oriented people.

Research is like a mission of missionary like people to render a humane service to humanity in missionary like spirit.

2. Research in Education

Education has come to function as a specific process-programme enunciated by the society that is specifically meant for facilitating the healthy allround growth and development of children. In this man-making, character-building process, there are many pertinent questions which have been very scientifically answered by the research workers engaged in educational research. It is on the basis of educational research findings that a number of vital theories of learning have been developed, methods of teaching have been arrived at and adequate guide lines for curriculum construction have been chalked out for the children of different age groups. The entire system of pedagogy has been greatly benefitted and enriched by the valuable contribution made to it by research in guidance/education.

Educational research has established education as a scientific process. This has fetched, Research in Education a place of dundamental importance in the entire spectrum of research activity in the society. Research in the field of education is being recognised [illegible] fascinating to the educational researchers [illegible] and by researchers engaged in any other discipline [illegible].

Till recently, researchers in education were [illegible] the field workers in the process of education. [illegible] in Education has been the domain of research workers who themselves were not found actively involved in the process of education. However, these research workers have produced [illegible] good amount of constructive research results [illegible] workers who are actually running the process of [illegible]. [illegible] out of the field research workers [illegible] emphasis upon what the teachers should teach and [illegible] teach, how to teach and how not to teach, who should teach and who should not teach. The kind of research [illegible] research workers is known as pure research, fundamental research, normative research and historical research. The significance of the contribution made to the process of education by these researchers can hardly be underestimated by any one. Actually they constitute the team of builders who have built the modern system of education, [illegible].

3. Action Research

> ' Action research is focussed on the immediate application, not on the development of theory, nor upon general application. It has placed its emphasis on a problem here and now in a local setting. Its findings are to be evaluated in terms of local applicability, not in terms of universal validity. Its purpose is to improve school practices and, at the same time, to improve those who try to improve the practices : to combine the research function with teacher growth in such qualities as objectivity, skill in research processes, ability to work harmoniously with others and professional spirit.'
>
> - John W. Best ; Research in Education.
> Prentice Hall of India, [illegible], p. [illegible].

Action Research is more or less a recently introduced movement in Education. In this type of research, teachers teaching and educational administrators in schools and colleges are found to be actively engaged in research in education. Action research is the research in which the practising personnel in the process of education arrive at systematic designs of research problems to be researched into at their own levels that they themselves happen to face in their routine duties.

4. Action Research and Teachers

Action research is a kind of research in education, the need for which is felt by persons in action in the process of education. For this reason it is known as Action Research. These researchers are mostly teacher-researchers who conduct the research and test the validity of its results in the real teaching-learning situations. These action researchers are supposed to have real perspectives of their research problems at hand. It helps them formulate their insightful hypothesis of the problem, too.

Getting into Action Research, on the part of teachers manifests their genuine concern for the day-to-day problems that they themselves face in their teaching profession. They research with an urge to understand the problem, find its solution and improve upon their teaching efficiency. It adds to their competency and effectiveness in teaching profession. The feeling of accomplishment which they happen to nurture on the successful completion of their action research projects, makes teachers still the more creative and venturesome in the performance of their duties. While substantiating the effectiveness of the process of education as a whole, action-research poised teachers make a noteworthy headway in their personal as well as in their professional growth and development.

Teachers involved in action research are deemed to be conscientious teachers, dutiful teachers who have an ardent desire to do their best in the teaching profession. Teachers who cherish no inklings for analysing their day-to-day problems in teaching may be taken as devoid of a true love for their teaching profession. They are just teachers by dint of their own pressing compulsions who have yet to develop the required commitment to their profession. Teachers who feel proud of teaching profession as their beloved career enjoy undertaking action research projects as a matter of their pet pastime.

Involvement in Action Research should be taken as essentially the teachers' own prerogative. It should not be imposed upon them. Action research should be taken by teachers as a matter of their own sweet will. What is urgently warranted in this direction is that the teachers should [illegible] duly motivated for undertaking action research programmes, [illegible] of their routine professional obligations.

5. Motivation of Teachers for Action Research

For all practical purposes, teachers in their own [illegible] and in the interest of teaching profession [illegible] develop a fascination for action research. Research in education when it is supplemented with action research, undertaken by teachers, becomes really a research of practical utility and concerned for ensuing an era of reform in education. Research [illegible] that is not supported by action research [illegible] the research for research sake without having sufficient bearings on the teaching-learning strategies being followed in the process of education. Research in education [illegible] and it prevails upon the prevailing thoughts and practices of the system of education when it is essentially conducted by in-service classroom teachers and educational administrators of schools.

Teachers need be facilitated and motivated to examine their day-to-day pertinent questions with an analytical bent of mind. They should be encouraged to develop an urge to make well-designed investigations into the practical problems that they happen to face in their daily teaching programme. Teachers are really active in their duties when they are found actively involved in action research.

We should have pre-service courses of studies in action research at the very threshold of teachers' joining the teaching profession. While in service, teachers should have refresher courses on action research. While in service, they should not be over-loaded with routine classroom teaching and with other school duties let they should loose sight of some programme of action research expected from them. Action research seminars in schools can be found to be very useful for motivating the teachers to take up action research problems for investigations at their levels. Some kind of consultancy service can also be instituted in the schools for the purpose. Headmaster/principal is also expected to give good guidance to teachers to carry on-action research in schools. Actually heads of educational institutions should instill an inspiration amongst teachers for pursuing action research most willingly. The headmaster should also formulate team action research designs in which a team of teachers should be actively involved. The headmaster as leader, should never be found failing in providing his leadership to action researchers in his school.

If we are really interested in action research, its financial aspect should be overlooked or set aside so very casually. Teachers involved in action research or ready to enter into it, may need financial assistance to support their research projects. Although a close scrutiny may be very much desirable before sanctioning financial assistance to the teachers for their action research projects but it should be done with an open heart without any malice or prejudice towards the concerned teachers. At the same time, a true action researcher should never mind and have the pleasure of financing his research from his own pocket, too. He should not take it as taxing to his purse. He should take it as the most desirable investment for his personal growth and satisfaction. A true researcher should not depend upon the mercy of people who matter in the process of sanctioning financial grants to their proposed research projects. A research should be taken as mission towards which a sacrifice of some money must be taken as a matter of privilege. NCERT, UGC, and CSIR have elaborate programmes and schemes to finance research projects. Similar schemes should also be incorporated in the schemes of DIETs.

NCERT runs a Seminar Readings Programme for action research projects. Selected projects are awarded a merit certificate of National Award with a prize money of Rs. 1000/- each. Similar schemes of reinforcement and recognition need be launched at State and District levels, too. Action researchers should get incentives in the form of additional increments and out-of-turn promotions in their professional careers. All the more, the State should give wide publicity to the best adjudged action research projects as they may really deserve.

6. Problems for Action Research

There can be a long list of problems which can be considered for Action Research. Teachers themselves are the right persons to select their own problems which might be haunting them in their work. However, for illustration sake, some of the problems can be enlisted as :

Students may be studied for their :

- Study habits,
- Motivation for studies,
- Attitude towards studies,
- Likings for each other,
- Likings for teachers,
- Family backgrounds,
- Attitude towards hometask,
- Adjustment at home,
- Adjustment in the school,
- Mental Health,
- IQ and Creativity,
- Perception of teachers' quality of teaching,
- Perception of environmental factors affecting their growth and development,
- Perception of School Organizational Climate,
- Special needs.

A student who is found to be an exceptional one (gifted, slow learner, delinquent, quarrelsome, handicapped) may be studied with the help of Case Study Method).

Experimental designs like the following ones can also be thought of under Action Research programmes :

- Impact of personality of teachers on the learning of students in terms of their academic achievement.

- Teachers' preparedness for teaching and students' learning thereof.

- A comparison of the effectiveness of methods of teaching.

In collaboration with counsellors in schools, teachers can enter into small but very useful action research studies with the tools and techniques of interview, observation, check lists and rating scales. Once a researcher, also the action researcher enters into research activity, he visualises his own plan of action.

7. Steps in Action Research

An Action Research project may be illustrated for its various steps as under :

7.1 Statement of the problem

The teacher visualises the problem. To begin with, he has to define the problem in a very concrete form. For this he has to make [illegible] related to it. For further clarification, he may discuss the problem with his colleagues. He should make a little bit of survey of literature especially related to the problem in his mind. This helps him to get at the real footings [illegible] of the problem, th[illegible] to have the clarity of the perspectives and limitations of the research problem.

For example, the teacher may observe that students are found not duly inclined towards their studies. Students' poor performance in examinations may lend credence to teacher's contention. There can be many reasons for students' failure to make satisfactory achievement in studies. Now, in this context, one relevant [illegible] may be to study students' attitude towards studies. Here, it may be noted that students' attitude towards studies may be influenced by many factors. But for the action researcher, here he is mainly concerned with the [illegible] study of students' attitude towards studies. He is not concerned with the factors building up or not allowing to build up healthy attitude of students towards their studies. So, he comes to make the statement of his Action Research problem as :

A STUDY OF STUDENTS' ATTITUDE TOWARDS THEIR STUDIES.

7.2 Hypothesis

A hypothesis is the visualised answer to the research problem under investigations. It illustrates purely a tentative answer to the problem in the background of which the researcher may get into his research activity. A hypothesis is examined for its acceptance or rejection on the basis of the findings/ results of the research study.

In the above stated research problem, the teacher has undertaken this study with the notion that students fail to make academic achievement up to his expectations because of their lack of healthy attitude towards their studies. This means that the teacher thinks that students do not cherish a good amount of positive attitude towards their studies. For this, the hypothesis of the problem may be formulated as, 'Students lack a desirable and healthy attitude towards their studies.'

It may be pointed out that it is not very essential that each and every action research problem must be backed by its hypothesis. Rather than starting with a tentative answer to the question of the research problem, the researcher can straightway start with his investigations to find out an answer to the problem.

7.3 Sample

For the study of any research problem, it is not feasible and it is also not required to include the total population of students. Statistical techniques help us to study the problem over a small population known as sample of the study. For the sake of our present problem, the teacher may make students of Class V his own school as a sample of his study.

7.4 Tools and Techniques

Tools and techniques are the wheels of a research programme. The researcher to begin with his work begins with his research into the tools and techniques for the study of his problem. He should be conversant with the tools and techniques available to serve his purpose. He has to make a very wise choice of tools and techniques for his investigations.

At elementary school level, we may conduct our action research with the help of interview of students and their parents. An interview schedule may be developed with mutual discussions amongst staff members. Students' attitude towards their studies may be studied by asking students questions on their likings for studies, perception of the utility of studies for them, likings for the school, attitude towards books, hometask and teachers.

*RCEB Scale for Students' Attitude towards their Studies, may be taken as a reference point in this context.

* S.P. Anand ; Tools for Secondary Class Students. Shovan Publishers, Bhubaneswar, 1990.

Reliable and valid data are a must for arriving at reliable and valid findings and for that reliable and valid tools and techniques are but very essential. The researcher to begin with should start his work by equipping himself with the required tool and technique to work with. He should not coin out a problem befitting to the tool available to him rather he should prefer an action research on his own felt problem itself for which he may even venture to develop his own tools and techniques.

7.5 Data Collection

Once an appropriate tool has been selected, developed or adopted, further need lies in being fully familiar with the techniques of its application. In a pilot study, a try out of it over a small sample of students can also be exercised. The researcher has to be very accurate in his data collection. However, in data collection, we may not except a beginner to be the master of it but it is definitely desired that he must acquire mastery in this important aspect of research in due course of time.

7.6 Analysis and Interpretation

Analysis and interpretation of the data collected determines the merit of an action research project. How to analyse the data, depends upon the research problem and the data collected.

It is believed that we should not shirk using statistics to analyse the data but we should also not be over enthusiastic to apply statistics for merely giving the data a statistical treatment. We should be rational in our approach. It is well advised that the researcher may read some research reports to be conversant with the right method of making meaningful interpretations of his data. The analysis of the data must lead to accepting or rejecting the hypothesis, if any, with which the researcher might have started his research work.

7.7. Practical Implications

Enlisting of research findings in a systematic manner is allright. But the researcher should also draw practical implications of the research results of his study. A record of practical implications makes the research study useful to one and all who are really interested in the improvement of teaching learning practices in a system of education.

8. Suggestive Studies

It is advisable on the part of the researcher to pin-point some follow-up studies to his research study. It will help him to pick up the thread later on as and when he himself likes to extend his completed research study. Suggestive studies motivate the fellow researcher to do more research work on the research problems like the ones undertaken by the researcher concerned.

As for example, here we may suggest studies like the following ones :

1. Students' attitude towards studies and their family backgrounds.
2. Students' attitude towards their studies and their achievement in examinations.
3. School organizational climate and students' attitude towards their studies.
4. A correlational study of students' study habits and their attitude towards studies.

5. A study of students' motivation for and their attitude towards studies.
6. Students' mental health and their attitude towards studies.
7. Students' attendance in the school and their attitude towards studies.
8. Students' inter-personal relationships and their attitude towards studies.
9. Factors affecting students' attitude towards their studies.
10. A comparative study of sportsman and non-sportsman for their attitude towards studies.
11. A comparative study of attitude of boys and girls towards their studies.

* * * *

Module No. 12

EXTENSION PROGRAMMES

Dr. S.K. Goel

1. Background

Since independence there has been a large scale expansion and a degree of reconstruction in the field of education at all levels. In the field of teacher education also there has been not only quantitative expansion but there has also been some qualitative changes with the incoming of the influences of various new trends and other new features. Not only have the training institutions and the enrolment therein increased over the years but changes have come in the outlook for the preparation of teachers.

Educational reconstruction in India implies the use of integrated professional experience of specialists in research, planning, development and administration.

As text books and supplementary educational materials are tried out with practising teachers in workshops in which the teacher is evidently the instrument of change, so the entire structure of training and extension in field services is designed to bring about that volume of change that is implied in a continuous process of evaluation, discovery and feedback. All change, all innovation must reach out to take in the teacher, to make him the hub of the continuing revolution in education.

One of the startlingfacts of the present century is the explosion by knowledge in every sector. The old training methods and experience are inadequate as guides to enable us to do justice to the present requirements.

In every aspect of life, more of re-education and re-training is demanded. Whereas this is true of every field, it especially applies to the field of education. Inspite of several constraints, teachers happen to be the key persons to initiate and support change for educational improvement. With the increasing complexity of problems, expectations from teachers are also [illegible]ing. The indifference, the inefficiency and the apathy towards educational experiments and lack of zeal on the part of the teacher may result in disaster in the educational institutions. If they fail to keep up the frontiers of knowledge, they will be giving yesterday's education to tomorrow's citizens. To enable a teacher to create a thirst for knowledge among his pupils, he must continue to learn and grow professionally. Thus continuing education of teachers at all levels is of special significance and here the role of extension programme comes in.

2. OBJECTIVES OF EXTENSION PROGRAMMES

1) To upgrade teachers' knowledge of curricular content and methodology.
2) To keep teachers abreast of developments in education and familiar with changes in policies affecting programme thrists.
3) To train teachers for roles demanded by new needs.
4) To raise teacher qualifications through either formal degree or non-degree courses.
5) To arrange seminars, conferences, workshops, refresher courses.
6) To enable the teachers to learn new ways of teaching and face new problems efficiently.

7) To enable the teachers to contribute to the qualitative improvement of education.

8) To disseminate knowledge about different aspects of education through the publication of journals, newsletters, booklets, leaflets, narrative papers, modules, etc.

9) To develop his ability to deal with colleagues, parents and the community.

10) To boost the morale of teachers by giving help and recognition to those who want to learn to do better.

3. PRINCIPLES FOR PLANNING EXTENSION PROGRAMMES

Thereare certain principles which have to be taken into consideration for planning the extension programmes for teachers. A few principles are given below :

1) Provide for maximum involvement of the participants and providing them with opportunities to grapple with the different problems they are facing.

2) Conduct need-based programmes.

3) Develop a climate of freedom for participants to express their views.

4) Create an atmosphere which is conducive to building mutual respect, support, creativeness and spontaniety.

5) Encourage teachers to test and try out ideas and to plan in real situations.

6) Plan extension programmes realistically so that all the ideas emerged through discussions can be translated into action when the teachers go back to their places of duty.

7) Develop simple possible means to give the decisions a practical and concrete shape.

PROBLEMS

The following problems are experienced in arranging tension programmes in education.

1) Lack of long range planning to train under-qualified and untrained teachers and to retrain the trained ones. There are no proper plans which could clear the backlong of untrained teachers by a target date, nor one which will provide renewal education to update the knowledge of once - trained teachers.

2) Lack of continuous feedback mechanism to study the effectiveness of the pre-service and in-service education programmes. There have been some sporadic attempts to study the effectiveness of the training programmes. However, suggestions and recommendations are not implemented. The same faults are unfortunately repeated again and again. There is a need for regular and continuous feedback to help improve extension programmes.

3) Lack of adequate funding. Extension programmes cost a lot in terms of salary, travelling, and other expenses. Inadequate funding also explains the inadequacy of resource and learning materials for extension programmes, as well as the insufficient use of educational technology. Most of the time, there is no provision for typing/duplicating/photocopying, etc. and as such, effective training cannot be implemented without adequate funding.

7) Develop simple possible means to give the decisions a practical and concrete shape.

4. PROBLEMS

The following problems are experienced in arranging extension programmes in education.

1) Lack of long range planning to train under-qualified and untrained teachers and to retrain the trained ones. There are no proper plans which could clear the backlong of untrained teachers by a target date, nor one which will provide renewal education to update the knowledge of once - trained teachers.

2) Lack of continuous feedback mechanism to study the effectiveness of the pre-service and in-service education programmes. There have been some sporadic attempts to study the effectiveness of the training programmes. However, suggestions and recommendations are not implemented. The same faults are unfortunately repeated again and again. There is a need for regular and continuous feedback to help improve extension programmes.

3) Lack of adequate funding. Extension programmes cost a lot in terms of salary, travelling, and other expenses. Inadequate funding also explains the inadequacy of resource and learning materials for extension programmes, as well as the insufficient use of educational technology. Most of the time, there is no provision for typing/duplicating/photocopying, etc. and as such, effective training cannot be implemented without adequate funding.

11) Teachers and their administrators/supervisor are seldom simultaneously trained on innovations. Often, teachers are not able to make use of the skills and knowledge gained because of resistance or non-cooperation of their heads/principals/ other superior officers.

12) There is not as much emphasis on attitude change as on knowledge change. After attending the extension programmes, teachers leave with more knowledge but holding on to the same attitudes they came with.

5. ACTIVITIES

NPE provides a comprehensive national perspective for education. It envisages a continued effort required to develop National system of Education. In order to be effective, a teacher is required to update his/her professional competence regularly. For this, he/she will have to take part in various extension programmes that will be organized periodically as part of the continuing education of teachers.

As a teacher you are devoting much of your professional life of curricular transaction in the classroom and outside. A glance at the list of activities organised in the schools reveals that these are effective means for providing learning experiences to children. You are probably aware that there have been changes and modifications in the school curriculum at certain intervals. Since the curriculum is dynamic in nature, it gets changed and modified with the changing needs and aspirations of society. In view of this rapidly changing world, what kind of activities. Can you think of to realize the present-day aims and future goals of education ? And what kind of extension programmes do you need ? What kind of modalities do you require ? What kind of instructional media do you need ? What kind of

4) Lack of transportation and communication facilities particularly in small tourns and in the remote and rural areas. Some extension programmes may require adequate provision of field trips and visits to specialized agencies for practical demonstration to gain first-hand information.

5) Lack of adequate facilities. Most of the teacher training campuses have inadequate physical facilities.

6) Inadequate coordination of extension programmes, thereby resulting in duplication of effort, overlapping content and piece-meal measures.

7) Inadequate evaluation during and after the training. Only a few inservice programmes include a follow-up of the presonnel trained.

8) Poor coordination in the selection of inservice participants, particularly those being trained for new roles. Some persons are very frequently attending many programmes and remain away from their place of duty most of the time. This leads to the overtraining of some personnel and no training of many teachers.

9) Extension programmes entail expenses which may not be always borne by sponsoring agencies. Because of financial constraints teachers who can afford extra costs of transportation, boarding and lodging usually have more chances to attend such programmes.

10) Personnel trained for new roles are not always placed in positions which will maximize the use of their training.

changes are you noticing in the areas of your interest ? What do the children and their parents expect from you ? In short, what are your exact and precise needs so that you could deliver the goods more efficiently and effectively. Some of the following activities may help you to answer some of these questions but you can think of still many more activities.

Activity No.1

List the changes that have taken place in the school curriculum and in the curriculum of your subject during the last 10 years. Why have these changes taken place ?

Collect
Collate
Discuss.

Activity No.2

Prepare a list of those provision which need to be provided for the effective implementation of curriculum.

Collect
Collate
Discuss.

Activity No.3

Note the language items from the text-books which project the image of women ?

Collect
Collate
Discuss.

Activity No.4

List the possible causes of Learning Problems in classrooms.

Collect
Collate
Discuss

changes are you noticing in the areas of your interest ? What do the children and their parents expect from you ? In short, what are your exact and precise needs so that you could deliver the goods more efficiently and effectively. Some of the following activities may help you to answer some of these questions but you can think of still many more activities.

Activity No.1

List the changes that have taken place in the school curriculum and in the curriculum of your subject during the last 10 years. Why have these changes taken place ?	Collect Collate Discuss

Activity No.2

Prepare a list of those provision which need to be provided for the effective implementation of curriculum.	Collect Collate Discuss

Activity No.3

Note the language items from the text-books which project the image of women ?	Collect Collate Discuss

Activity No.4

List the possible causes of Learning Problems in classrooms.	Collect Collate Discuss

Activity No.5

What are the teaching methods and strategies you have been using ? Write on a separate sheet.	Collect Collate Discuss

Activity No.6

Can you list the different aspects of development which the curriculum should cover ?	Collect Collate Discuss

Activity No.7

Write down in a few sentences what you think will be the ways in which the teacher's role will cange.	Collect Collate Discuss

Activity No.8

Mention briefly what you think are the ways in which the evaluation methods should change. Give reasons.	Collect Collate Discuss

Activity No.9

What should our education seek to develop in our children ?	Collect Collate Discuss

Activity No.10

Do you know the modern technological innovations in your subject for imparting better instruction ?	Collect Collate Discuss

Activity No.11

Can you visualize the problems that the students will face if their needs are not fulfilled ?

Collect
Collate
Discuss

Activity No.12

Can you suggest alternative methods for reducing the homework of your students ? What ceriterion do you follow to assess the load bearing capacity of the children ?

Collect
Collate
Discuss

Activity No.13

Suggest some work experience activities that can be organized by different subject teachers in the school.

Collect
Collate
Discuss

Activity No.14

List the characteristics of growth and development of children of the age groups you have been teaching under physical, intellectual, emotional and social groups.

Collect
Collate
Discuss

Activity No.15

Did you ever feel the need for your further education and training after joining the service ? If yes, please elaborate on the role of extension programmes in facilitating the work of a teacher.

Collect
Collate
Discuss

If you work out the above activities carefully, you may be able to know your strengths and your weaknesses. You may be able to find out after careful analysis what kind of extension programme would be most useful for you. What should be the themes of the programmes which you should attend for developing better teaching skills and competencies. The more the skills are defined and broken into sub-skills, the better will be the teacher's under-standing with regard to the specific tasks in hand. Any method may prove sterile, if the teacher does not possess the necessary skills involved in using the method successfully. It is now being recognized on the one hand that the teacher must be able to see the relationship between the nature of the content and the objective to be achieved through it and on the other hand the teaching-learning strategies through which he can achieve these objectives.

6. ROLE OF N.C.E.R.T.

The NCERT seeks to train the specialists in curriculum development, evaluation and measurement, audio-visual education, guidance and counselling, research methodology, educational administration and other areas of educational enterprise through extension services programme.

Research and training apart, one of the main functions of NCERT has been to develop on sub-continental scale programmes in educational extension. This is done through the Department of Field Services. The Department has evolved a new training programme through internship extension; workers have been given special training in the development of instructional materials and the improvement of the functional use of school libraries.

One of the important activities that the Council has undertaken is to extend educational information to educational workers. This is the underlying aim of the extension and field services organized by the Council in primary, secondary and higher education as well as for workers in teacher education and in educational research. The Directorate for Secondary Education set up by the Council comprising a large number of extension service centres in different parts of the country seeks specially to cater for this activity of the Council. These centres are organizing on a continuing basis extension and in-service educational activities for the benefit of Secondary Schools in India. A large number of developmental programmes aimed at improving secondary education have also been conducted. Hundreds of schools are involved in the programme of intensive school improvement. Each school has developed a programme of improvement in specific areas depending on its need and the needs of its teachers.

In addition, various other Departments of the Council are engaged in extension services. Short-term training courses, conferences, workshops, seminars and follow-up studies, clubs, fairs, exhibitions and film shows are the means through which the latest developments in education are made available to personnel in educational vocations.

7. STRENGTHENING OF EXTENSION SERVICES AND ROLE OF DIET

Some conferences of State Education Secretaries and Directors of Public Instruction have been held to discuss the ways and means of strengthening the Extension Services. It was recommended that the programmes of Extension Services should give priority to the state and national targets in secondary education. The staff of Extension Services should pay more frequent visits to schools, especially in the backward and rural areas. During these visits the Officers of the State Department of Education may accompany the Extension Services staff whenever possible. Extension

Services should assist the State Department of Education in implementing the various schemes in secondary education, particularly those which are directly related to the improvement of schools. In important schemes, such as comulative record cards, organizing content courses, etc., the Extension Services Centres within a State should work together so as to divide the load and avoid duplication of efforts. The centres in a state should combine their resources in respect of publications so that worth-while publications may be brought out in adequate manner.

Since there is a shortage of standard books on education in Hindi and other regional languages, the training colleges should take up immediatcly the work of translation. The State Department of Education should provide [illegible] help for this purpose. There is a need to introduce [illegible] programmes in Training Colleges where Extension [illegible] have not been provided. Extension Services Units should be started in those training colleges which donot have an Extension Services Centre. In order to meet the expenditure for the Extension Services Unit, a grant should be placed at the disposal of each training college. Provision should be made for the training of guidance and counselling personnel in secondary schools. Efforts should also be made to provide career masters in as many higher secondary schools as possible. In collaboration with the Extension Services Centres, the Bureau of Educational and Vocational Guidance should organize training courses for career masters. There is a need to formulate an integrated programme of action during the current five-year plan so that the resources, funds and manpower available with the Extension Centres as well as the State Department of Education may be mobilized to achieve the targets. It is felt that seminars should not always be held at the headquarters but should be distributed in the rural areas so that more teachers could participate in them. Seminars should be of a reasonable duration so that their impact may be tangible. The District Inspectors of Schools should be informed of all the activities of the Extension Centres and they should be invited to participate in the programmes as much as possible. It is observed that individual centres have been working on comulative record cards, each in its own way. In view of the importance of these records in giving guidance to the pupil, it is necessary to evolve a uniform pattern of the card. The extension centres in collaboration with the Directorate should therefore immediately take up a study of the question, analyse the existing cards and evolve a suitable pattern of cards, accompanied by a manual of instructions to teachers. The card should be so framed that it gives all the essential information necessary but at the same time it is not too difficult or cumbersome. It is essential that the teachers should themselves fill up these cards as they are in close contact with the pupils. A separate section in the card could be allotted for entires relating to the pupils' scholastic achievement as this data is required for the university admissions.

The staff of the Extension Centres should visit the schools more frequently; attention should be given in greater measure to backward and rural areas. Extension Centres should assist the State Department in the proper utilization of science grants to schools. During their visits the Extension staff should verify whether the schools were statisfactorily utilizing the grants given by the State Department for improvement of Science and also bring to the notice of the Department the names of other schools which requir such assistance. The improvement of examinations should be taken at two levels - one at the university level and the other at the school level, starting from the earliest stages. This is necessary to prepare the children adequately for the new form of [illegible]. In drawing up the future programmes of the centres, emphasis should be given to subjects such as social studies, general science and home science. The Education Department should provide the necessary resource personnel to the Extension Centres for these programmes. It is necessary to provide incentives to teachers to stimulate greater interest in inservice activities. Provision should therefore be made for special increments and also for the confidential report to indicate the degree of participation of teachers in the inservice programmes. The State Education Department should issue circulars to schools and managements so as to ensure the fullest participation. Copies of departmental circulars relating to secondary schools should be sent to all the Extension Centres so as to keep them informed of the instructions issued by the Department from time to time. The Director of Public Instruction may also issue instructions at the Inspectorate stressing the fact that Extension Centres were a part of the State Department and they should extend the fullest cooperation to the Centres in their activities. All the training colleges in the state should be involved in inservice programme, each college taking up some part of the work in the area in its neighbourhood. This would be made possible if an allowance is given to a staff member of every training college who is interested in taking up the work. The success of inservice programmes of extension centres is so closely dependent upon the efficiency of pre-service training that it is essential to re-think about the entire programme of teacher education. It would therefore be desirable to convene a conference of all the Principals and senior faculty members of training colleges in every state. The activities of the Extension Centres should also take into consideration the emphasis on secondary education programmes from the national point of view such as :

a) teaching of languages as tool subjects;
b) science education;
c) school libraries and development of reading habits;
d) cumulative record cards;
e) preparation of handbooks for the teachers.

The collection of text books available at the Central Bureau of Textbook Research should be made available to the State Education Department for being exhibited at the vario Extension Centres for the use of teachers. It is necessary to make a continuous and comprehensive evaluation of every technique so as to assess which of them was more or less effective. The quarterly newsletters of the Extension Centres should be complied and edited by highly experienced staff so as to make them interesting, informative and useful to the teachers.

It would be worthwhile to examine the extent to which schools are associated with the Extension activities and to find out the impact on the schools. This would serve as a guide for determining the types of services that should be rendered to the strong and weak schools. Coordation is essential for the success of extension services. This coordination should be effected between the Extension Centres and the Training Colleges, among the Extension Centres and between the Centres and the State Department of Education. Coordination in the publications brought out by various Extension Services Centres would be very fruitful. Steps should be taken to evaluate publications of all the Extension Centres periodically and to select those which deserve wider distribution. The subject consultants attached to the State Department of Education should work in close cooperation with the Extension Services and provide the resource persons. It is to be emphasized that the programmes of Extension Services should reflect the local needs of the State Department of Education and the national targets and the programmes in the field of secondary education.

The NPE places complete trust in the teaching community. It envisages freedom for the teacher to innovate and to carry on his work in a manner that is relevant to the needs and capabilities of learners, and also reflects the concerns and aspirations of the community.

The NPE has suggested a variety of steps to improve the status of teachers with effective teacher accountability, and the following are the suggested steps.

1) Introduction of reforms in the system of selecting teachers.
2) Involvement of teachers in the planning and management of education.
3) Creation of opportunities and an atmosphere to promote autonomy and innovation among teachers.

Regarding the professional education of teachers, both the pre-service and inservice components will be overhauled to meet the thrust envisaged in the policy. District Institutes of Education and Training (DIET) are to be organised for pre-service and inservice education of elementary school teachers and for personnel working in nonformal and adult education. DIETs will in due course replace substandard institutions. Colleges of Teacher Education will be strengthened so that they are in a position to provide secondary teacher education of quality. The National Council of Teacher Education (NCTE) will be responsible for accrediting teacher education institutions and will provide guidance on curricula and methods.

In pursuance of the policy, the Ministry of Human Resource Development (MHRD) planned to set up 400 DIETs in the country. Of these, 257 DIETs have so far been sanctioned by the MHRD. The remaining DIETs may be sanctioned during the eighth five year plan. The DIET is a novel district level educational institution. The setting up of DIETs is a step towards decentralization of opportunities of professional preparation of teachers at the elementary level. The major function of a DIET is to improve the quality of the manpower engaged in educational occupations upto the elementary level in the district. Most of the faculty members of DIETs would be persons with background in elementary education. Training programmes for the DIETs have to be shared with SCERTs. There has to be a proper networking among DIETs, SCERT, NCERT, etc.while arranging extension programmes in the respective district on a specific theme. There has to be a proper planning and coordination among various DIETs under a State so as to have maximum participation in the extension programmes and to avoid duplication of efforts. This can be done by disseminating knowledge about different aspects of education through the publication of journals, newsletters, booklets, leaflets, discussion papers, modules, etc. so as to organize the extension programmes effectively.

8. DISSEMINATION OF INFORMATION AND NETWORKING

A genuine effort is to be made to improve the quality of education through extension programmes - with particular focus on proper attitudes, creativity and innovations. There have been attempts to change the process of learning and teaching during the last few years. Educators are faced with the challenge of making educational programmes more meaningful and realistic in the context of socio-economic conditions of the country. The teachers repeatedly focus their attention on the following problems and constraints in relation to extension programmes and the development of exemplar materials.

1) Problem of remoteness - the urgent need to disseminate knowledge and new methods to far flung areas of the country.

2) As collossal sums of money are being spent on education, it is highly appropriate and necessary to lay emphasis on the promotion and evaluation of attitudes, creativity and work experience.

3) The overall need to have more and useful reference/ research material for the benefit of the teachers as well as organizers of extension programmes.

Efforts for systematic storage, retrieval and dissemination of a wide range of educational information will be a welcome step. Since educational information is the most vital resource for scientific and technological development of the country, there is an imperative need to develop a National Information System in Education ([illegible] with a sub-system structure of three level organisations i.e. National, State and District Levels. Downward and upward flow of information from one level to another is suggested for maximum utilization of available resources in this vital field of education. In order to ensure the welfare of children, it is necessary that information should flow freely and rapidly from policy makers down to the grass-root workers. Information is a bssic resource and link between a variety of activities, intellectual and material, in the society, institutions and individuals. What does the user want ? Not the enormous quantity of undigested data and text which we shall be able to manipulate and store, not a list of references, but actual relevant organized information, which has to be given to the right person at the right time, in the right quantity and the right format, and it must be accurate, reliable and in the context.

We are living in an 'Age of Information Revolution'. The fresh information is being generated at an exponential rate and it has become extremely difficult to face the information explosion. As the output of educational information increased, the number of communication media also grew. The time lag in primary and secondary media can be bridged by Letter Journals, Current Awareness Services and Electronic Journals. Online information retrieval is today the speediest and the most effective means of getting the required information. Its main advantages are : (i) Queries can be searched with great speed and answers can be obtained almost instantaneously at the terminal. (ii) A large volume of information can be searched rapidly (within minutes or seconds compared to several days in the manual method) and accurately. (iii) It is possible to search databases to which the organization does not subscribe. (iv) In the online system, the user/searcher becomes an important component, as it makes possible man-machine dialogue. Use of online systems in information storage, retrieval and dissemination (ISRD) is gaining momentum.

Application of the latest developments in the field of computers, telecommunications, reprographics and micrographics for ISRD has become imperative for the effective and speedy handling of information. Mini-computers, microprocessors and wordprocessors have now made computer application possible in every conceivable form. Another potential tool just emerged for ISRD is Laser Technology which is a threshold technology and promises great advancements in communication with its ability to pack more information in less space. Some of the technologies like OCR (Optical Character Recognition) and COM (Computer Output Microfilm) are also being increasingly used in information handling. Emphasis is given to the various forms of electronic modes of communication - electronic mail and message services, computer network using distributed data processing, Videotex, Teletext, Integrated services digital network, Satellite communication, Teleconferencing, and Facsimile transmission, The essence of communication is the conquest of space and time. The longest and most difficult distance in transmitting information is the last half-inch between a man's eye and his brain. Most of us will continue to be concerned with the communication technology chiefly as a means to an end. Efficient transfer of information is essential for rapid economic growth in a developing country like India. By 2000 AD communication facilities of international standard would be available in India.

8.1 Planning of NISE :

The tasks of planning, decision - making and administration are increasingly dependent on the availability of reliable and timely information. Therefore, a planned approach to organize the information to ensure that information gaps are plugged and a free flow and exchange of information is permitted, would effectively contribute to a total pool of information on a centralized basis. Establishment of NISE is the only practical solution to provide free flow and exchange of information at optimum cost. NISE demands a master plan which is an intellectual process. The programme requires local, regional, national and international cooperation in activities and use of resources in a way that can strengthen national infrastructure through efficient working of institutions and services, that share the responsibility of collecting, storing, processing and retrieving as well as for evaluating, analysing and disseminating the information contained in their collection.

NISE is actually an aspect of educational, scientific and cultural sphere and thus its plan should form a part of the overall economic plan. The objectives and functions of NISE are in conformity with the national development plans and policies. A properly coordinated NISE can help reduce information gap and duplication of work. NISE is a means of achieving national objectives through economic and effective utilization of information in technological innovation, decision-making, research and education. In India, many educational organizations can substantially contribute in enriching the system if adequate cooperation is taken from them.

8.2 Organizational Structure of NISE

The structure of NISE will be a combination of "Centralization" and "Decentralization". The centralization of technical responsibilities as far as possible and decentralization of the services is one of the best means of reducing costs. Centralization offers the advantages of greater efficiency, economy, availability of the full resources of a system to any and every component of users. The advantages of decentralization are quicker, direct and personalized services.

8.3 Levels of the System

The system will operate at the following distinct yet interacting levels : National Information Centre (NIC), Regional Information Centre (RIC) and Local Information Centre (LIC).

8.3.1 National Information Centre (NIC)

It is proposed that NCLRT, New Delhi should serve as a National Information Centre (NIC) and discharge the following responsibilities :

a) To plan, coordinate, update, streamline and control the activities conerning acquisition, organization and dissemination of information through (i) cooperative action; (ii) dividing the responsibilities among other RICs; (iii) making use of new techniques in the transfer and utility of information.

b) To serve as a central depository for entire information/data.

c) To maintain databank for retrieval of information.

d) To compile sources of information like directories, handbooks, dictitionaries, encyclopaedias, state - of - art reports, technical reports, etc.

e) To undertake and bring out up-to-date union catalogues of the holdings of all conerned organizations. This can be brought out on the basis of type of literature covered e.g. books, periodicals, reports, reprints, microfilms, tapes, etc.

f) To bring out regularly Current Awareness Service (CAS) like (i) research-in-progress bulletins, (ii) lists of unpublished research literature covering dissertations, theses, etc, (iii) newspaper clipping bulletins, (iv) Selective Dissemination of Information (SDI) bulletins, (iv) newsletter giving information items of current interest in education, etc.

g) To ensure adequate bibliographical control of all the information on education by bringing out regularly publications like indexing services, abstracting services, translation services, bibliographies on specific topics, etc.

h) To provide reprographic services.

i) To establish links with international systems and their utilization for augmenting national resources and relations with the national information systems in the allied disciplines.

j) To conduct retrospective search i.e. to search the entire database or a major portion of it against a query.

k) To identify the present information requirements of users at all levels and forecast future requirements in the light of the overall national development plans and policies.

l) To promote research, development and innovation in information technology.

m) To have the responsibility of a referral centre.

n) To keep liaison with RICs.

8.3.2 Regional Information Centres (RICs)

It is proposed that one SCERT responsible for the districts under its jurisdiction should serve as RIC and discharge the following responsibilities.

a) Developing and maintaining document collection in the region.

b) Giving indexing, abstracting, bibliographical, SDI, reprographic and translation services.

c) Preparing regional catalogues and retrieving information.

d) Acting as contact point for users in the region.

e) Surveying the information sources of the region and feeding to NIC.

f) Supplying copies of documents available in the Centre on request and arranging for supply of documents not available in the centre through NIC or concerned RIC.

8.3.3 Local Information Centres (LICs)

Each DIET should have information unit and serve as LIC which should discharge the following responsibilities:

a) To collect and process information/data at the local level.

b) To feed information generated in LIC to concerned RIC and act as recipients of information from RIC.

c) To offer personalized services against specific request and in anticipation.

8.3.4 Conclusions

The system requires standardization and uniformity in planning techniques and procedures of information processing. This situation calls for increased cooperation of subject specialists and information scientists for economy and optimum use of information. Professional societies and consultancy organizations have a significant role to play in the interaction of subject specialists and information specialists. It is proposed to make a goal - directed approach to coordinate bibliographic efforts, establish networks of information service and provide consultants for setting up services in various institutions. The proposed model of NISE with a sub-system structure of three levels, viz, National, Regional and

Local, would promote the sharing of scarce and farflung resources and thus improve the status of school education in India. It can be said with a degree of confidence that in the years to come to Indian Schools will have not only more and more trained teachers at all levels through various extension programmes but also with greater professional efficiency and skill to make school teaching what it ought to be.

******

b/s

Module No.13

EVALUATION IN SCHOOLS

Dr. P. Das

The present system of evaluation does not adequately reflect the total growth/progress of the students or effectiveness of teaching. From the existing practices it is not difficult to pin-point some of the major shortcomings which need to be properly appreciated and accepted before taking up any plan of evaluation improvement. In a summerised way we can list these as under.

1) Concept of evaluation is restricted to examination rather than a broad comprehensive concept of evaluation.

2) Evaluation is considered as end of the course/ session rather than as an integral part of teaching-learning process.

3) Evaluation is considered as an act of measurement of students' learning rather than a means for improvement of their learning.

4) Evaluation activities are limited to scholastic aspects rather than total growth of the child.

5) Use of tools and techniques of evaluation to written examinations largely.

6) Quality of written examinations is questionable from the point of view of validity and reliability.

7) Diagnostic evaluation is still a dream of the future.

8) Using evaluation as a feedback has yet to become a reality for improving students' learning.

9) Evaluation is seldom emphasised as objective based, continuous, cooperative and a dynamic process.

You may add many more glaring shortcomings of the existing system of evaluation. What is really worth stating is the cause of all these ills. The cause may lie with the teachers or the educational system in general. Therefore, there is an imperative need to make evaluation an integral part of the total teaching-learning process and to make it continuous and comprehensive by taking care of all the three domains (Cognitive, affective & psychomoter) for all round development of the learner in both scholastic and non-scholastic areas.

Objectives :

After studying this module, you should be able to :

- Understand the concept of evaluation as quality control of educational programmes.
- Know purposes of evaluation
- Identify criteria of good evaluation .
- Develop suitable planning and implementation modalities of evaluation.
- Prepare a comprehensive scheme of evaluation
- Design a follow-up action in order to make evaluation more functional and meaningful.

Concept of Evaluation

The concept of evaluation should not be equated with the concept of examination or mere measurement. Broadly defined, educational evaluation is the quantitative and qualitative estimation of overall growth and progress of pupils towards objectives or values in the curriculum. The emphasis in evaluation is upon broad personality changes and major objectives of an educational programme. These include not only scholastic achievements, but also non-scholastic areas like attitudes, interests, ideals, ways of thinking, health, work habits, personal and social adaptability. Hence, evaluation is integrally related to the teaching-learning process. It entails a value judgement and works as quality control in educational programmes.

Activity - 1 :

Develop your own concept of evaluation and differentiate it from examination.

Purposes of Evaluation :

Mainly evaluation helps in :

a) determining the effectiveness of courses and programmes.

b) testing assumptions about instructional practices.

c) selecting, clarifying and appraising objectives.

d) creating motivation.

e) serving as a feedback for both teachers and students for effective teaching and learning respectively.

f) discriminating and ranking the students.

g) diagnosing pupils weakness/learning difficulties.

h) providing basis for guidance and counselling.

Activity - 2 :

List few more purposes of evaluation which you feel as necessary and important.

Criteria of Good Evaluation

The criteria of good evaluation emerge naturally from the basic assumptions about evaluation. They can be enumerated as follows :

a) Evaluation shuld be objective based.

The evaluator should identify and define clearly the set of objectives to be evaluated. The objectives may be in the areas of knowledge, understanding, application, skills, attitudes, interests health, work habits, personal and social adjustment etc. In addition the knowledge of Minimum Levels of Learning (MLL) is also more important both for teachers and evaluators as emphasied by NPE (1986).

b) Evaluation should be a comprehensive process.

Evaluation should cover both scholastic and non-scholastic dimensions of pupils' growth and uses a variety of appropriate tools and techniques.

c) Evaluation should be a continual process.

Since evaluation aims at estimating overall growth of the child and growth is basically a continuous phenomena, it is imperative to make evaluation regular and continuous.

d) Evaluation should be a dynamic process.

Evaluation should not be rigid or static in nature. It should be flexible and dynamic in respect of frequency of examinations, type of examinations etc.

e) Evaluation should be a cooperative process.

Since the emphasis of evaluation is on over all growth of pupils, a single teacher is not competent to do the justice for evaluating all the dimensions of pupils growth and hence the cooperation of all teachers, students, and parents is essential.

Activity - 3 :

Write down the specific procedures that you can adopt to make your evaluation continuous and comprehensive.

Planning and Implementation Modalities of Evaluation :

The following steps are suggested about the modalities evaluation in schools.

a) Determine the areas (both from scholastic and non-scholastic) and pinpoint the appropriate objectives under each area to be evaluated.

b) Selecting/preparing tools and techniques of evaluation. (Tools may include achievement test, diagnostic test, psychological tests, checklist, rating scale, records, observation, interview, and techniques may be in the form of written, oral and practical examination).

c) Determining the periodicity of evaluation.

In order to make evaluation continuous, periodicity of evaluation both in scholastic and non-scholastic areas should be decided much in advance keeping in view the school conditions.

d) Executing the Plan

Collecting of informations or evidences may be done by using the tools and techniques already decided above.

e) Recording the results.

Progress report cards both in scholastic and non-scholastic areas should be developed in order to record the results. A model of progress report cards is enclosed at the end for ready reference.

f) Using the results for instructional decisions.

The results of the evaluation may be effectively used for improving classroom instructions.

Activity - 4 :

1) Identify three objectives from non-academic areas which need to be evaluated at the elementary/secondary level.

2) Prepare progress report cards both for scholastic and non-scholastic areas for elementary/secondary school child.

Scheme for comprehensive evaluation

The scheme of comprehensive evaluation may include the following aspects of pupils' growth and activities.

Scholastic Aspects

Area	Periodicity	Tools and Techniques
Curricular areas	Five times in a year	- Written examination - Oral examination - Practical examination - Achievement test - Diagnostic test

Area	Periodicity	Tools and Techniques
Intelligence	Once at the beginning of the Primary/Middle/Secondary stage.	- Intelligence test

Non-Scholastic Aspects

Personal and Social Qualities		
- Regularity	Once in a year	- Observation
- Punctuality		- Anecdotal Record
- Discipline		- Rating Scale
- Habit of cleanliness		
- Emotional Stability		
- Initiative		
- Sense of responsibility		
- Spirit of Social Service		
- Any other		
Interests		
- Literary	Once in a year	- Observation
- Scientific		- Rating Scale
- Musical		- Anecdotal Records
- Artistic		
- Social Service		
- Any other		
Attitudes		
- Towards Teachers	Once in a year	- Observation
- Towards studies		- Questionnaire
- Towards school-mates		- Interview
- Towards school		- Rating Scale
- Any other		- Anecdotal records

Area	Periodicity	Tools and Techniques
Physical Health		
- Height	Twice in a year	- Observation
- Weight		- Interview
- Chest		- Medical Check up
- Physical defects, if any.		
Activities		
Literary and Scientific Activities		
- Library	Once in a year	- Observation
- Debate		- Anecdotal Record
- Recitation		- Rating Scale
- Creative Writing		
- Science Club		
- Any other		
Cultural Activities		
- Drama	Once in a year	- Observation
- Music		- Anecdotal Record
- Dance		- Rating Scale
- Drawing & Paining		
- Any other		
Out Door Activities		
- Games	Once in a year	- Observation
- Sports		- Anecdotal record
- Scouting		- Rating Scale
- N.C.C.		
- First Aid		
- Gardening		

Activity - 5 :

Keeping in view the school conditions, prepare the scheme of comprehensive evaluation in non-scholastic and activity areas.

Follow-up action :

The above guidelines attempt to indicate major directions in which the programme of evaluation deserves to move so as to realise the purpose of education. Orientation of teachers towards the new directions of continuous and comprehensive evaluation will not improve the system unless the teachers try to implement the scheme with sincerity and honesty.

The following follow-up action is suggested.

1) Organisation of Orientation Programmes for teachers about the new directions of evaluation

2) Keeping in view the school conditions, the scheme of evaluation may be developed and implemented on cooperative basis.

3) There should be regular supervision of the school evaluation programme and assistance may be provided to the teachers when they face any operational problems.

4) Format of Progress report cards (both in scholastic and non-scholastic areas) may be developed and be supplied by DIET to all schools for uniform record of results.

5) Action research relating to various aspects of evaluation may be undertaken by DIETs the findings of which will be taken as feed back for improving evaluation system.

.....

b/s

PROGRESS REPORT CARD FOR LOWER PRIMARY STAGE
(SCHOLASTIC ACHIEVEMENT)

Name of the School : ....

Name of the Student: .... Class........... Roll No.......... Year ....

Time of Tests -	First test (August)		Second test (October)		Half yearly Examination (December)		Third Test (February)		Annual Examination (April)		Total	
Syllabus Coverage	July-Aug.		Sept-Oct.		July-Dec.		Jan-Feb.		July-April			
Subject	Max. Marks	Marks Obta-ined	Max. Marks	Marks Obta-ined	Max. Marks	Marks Obta-ined	Max. Marks	Marks Obta-ined	Max. Marks	Marks Obta-ined	Max. Marks	Marks Obta-ined
1. Mother Tongue	10		10		30		10		40		100	
2. Arithmetic	10		10		30		10		40		100	
3. General Science	10		10		30		10		40		100	
4. Social Science	10		10		30		10		40		100	
5. Drawing	5		5		15		5		20		50	

Signature of

a) Class teacher :
b) Headmaster :
c) Parent :

Module No. 14

THE SCHOOL COMPLEX

Dr. A.D.Tiwari

Overview:

The school complex aims to integrate the neighbouring primary schools to a centrally located middle school, and the middle schools to a nucleus secondary school so that the schools of a geographical area may function as a whole-drawing on each other's resources and planning their development with minimum of external control and support. The scheme was formulated and put forward in a systematic manner by the Education Commission (1964-66), to improve planning and management of school education at local level for raising the quality of education in the [illegible]. The concept is now being revitalized by developing new [illegible] and guidelines for its effective implementation. In accordance with the National Policy on Education, 1986 (para 107), the Programme of Action (1986, p.203) clearly mentions that:

> 'School complexes will be promoted on a flexible pattern so as to serve as networks of institutions and please refer to POA alliances to encourage professionalism among teachers, to ensure observance of norms of conduct and to enable the sharing of experiences and facilities'.

This module is an effort to detail the concept of school complex.

Objectives:

After going through this module you should be able to:

i) understand the concept of school complex.
ii) appreciate the concept of school complex and the rationale behind it.
iii) participate effectively in the functioning of school complex.

PROGRESS REPORT CARD FOR LOWER PARIMARY STAGE
(NON-SCHOLASTIC ACHIEVEMENT)

To be assessed by teachers in three point grading scale
(Grade A - Good, B - Average, C - Poor)

Time of assessment Area of assessment	August	October	December	February	April
1. Personal and Social qualities :					
(a) Regularity					
(b) Punctuality					
(c) Discipline					
(d) Cleanliness					
(e) Initiative					
(f) Any other					
2. Attitudes :					
(a) towards schools					
(b) towards teachers					
(c) towards class mates					
3. Interest :					
(a) Artistic					
(b) Literary					
(c) Musical					
(d) Any other					

Signature of teacher :

Signature of Headmaster :

Signature of Parent :

iv) realise changed roles and responsibilities of teacher in a school complex.

v) contribute positively for the success of school complex.

vi) suggest alternatives in cooperation with colleagues within the school complex for improving the teaching-learning process.

vii) forsee the decentralisation of educational planning and administration at grassroot level for improving the quality of education.

viii) anticipate the problems which might arise in implementation of the school complex concept in your region and suggest ways to resolve these problems.

ix) plan to utilize facilities, services and support that could be made available for the participating schools from other schools in the school complex.

Background:

Activity Sheet No.1

Identify some problems that the formal school - education system in India is facing.	Collect Collate Discuss

The Article 45 of the Directive Principles of Indian Constitution refers to free and compulsory education for all children in the age-group of six to fourteen years. So, immediately after the independence of the Country all round efforts were made at all levels to develop necessary infrastructure of formal education in order to fulfil the constitutional obligation. As a result resources were mobilised to develop network of a large number of schools throughout the country and teachers were appointed to provide easy access of education to more and more children. Later, these efforts put challenges in terms of planning, management organisation, administration and inspection of such a large number of schools on the one hand and in terms of the problems of wastage and stagnation(dropouts), poor quality of education, single-teacher schools, schools without minimum essential facilities, isolation between institutions and between schools and community, less or no participation of teachers in policy-making and decision-making process, improperly equipped school-classes or non-avaialbility of instructional materials to schools and the like, on the other hand. These challanges of managing education well called for a variety of innovative ways and means to overcome them. The concept of school complex emerged as a result of such an innovative practice.

Activity Sheet No.2

a) Suggest some way out to minimise the magnitude or resolve these problems of school-education.

b) What the Education Commission (1964-66) has suggested in terms of the school complex and how it helps in this direction?

The Education Commission (1964-66) and the School Complex:

The idea of school complex mooted by the Education Commission (1964-66) was not an entirely now concept. During pre-independence period too, in the princely state of Ajmer and in some part of erstwhile province of Bombay, neighbouring schools were linked with the middle school to form a 'cluster'. However, this concept was put forward in a systematic manner by the Education Commission (1964-66)to provide a solution for some of the serious problems Indian education was facing. While studying the status of various types of schools, the Commission recorded that, at the beginning of the Fourth-Five Year Plan there were about 4000 secondary, 65000 higher-primary and 3,60,000 lower primary schools located in the rural areas. The Commission discovered that these schools can be clustered in a meaningful way. In a radius of 5-10 miles there is one secondary school, about five higher primary schools and about 28 lower primary schools. It struck to the Commission that the cluster of these schools could be taken as '.....a fairly small and managable group which can function in a face-to-face relationship within easily accessible distance. It has also good potential for planning and guidance since there would be at least five or six trained graduates in the school - this group built around a secondary school be adopted as a minimal viable unit of educational reform and develop accordingly' (p.43). The clustering of higher and lower primary schools around the nucleus of a secondary school can be attempted in a two tier system. In the first tier, eight to ten lower primary schools can be integrally related to a higher primary school on the basis of physical proximity. The headmaster of the higher primary school should provide extensive services to th component lower primary schools in his charge and he should see that these lower primary schools function properly. For this purpose, he should organise a committee under his chairmanship consisting of the headmasters of all the component lower primary schools in his charge. The committee should be entrusted with the task of planning and development of all component schools as a part of the 'single complex'. The committee should also provide guidance and supervision for day-to-day activities. The second tier can involve clustering of higher primary schools around the nucleus of a secondary school. A committee consisting of all the headmasters of the higher and lower primary schools under the chairmanship of the headmaster of the secondary school should be set up. This committee should be responsible for the functioning and development of all the schools in the school complex. The headmaster of the secondary school should be the overall incharge of the school complex. The school complex committee should plan the work to formulate academic calender and give guidance to all the schools in the area.

The Commission viewed that 'this group of schools and teachers can be given a good deal of freedom to develop their own programmes subject to general guidance of the inspecting staff. It should also be requested to coordinate its work with the local communities and to derive as much help from this source as possible'. The Commission felt that the school complex as a unit can break the terrible isolation in which each school functions at present. It would encourage cooperative efforts among the schools, help them develop own identity, facilitate maximum utilization of resources and a number of oth r positive things.

An important aspect of the scheme was to decrease the load of inspection of the inspecting authorities to visit the schools under their jurisdiction in order to provide adequate inspection. The Commission visualised that, 'the complex itself will perform certain delegated tasks which would otherwise have been performed by the inspecting officers of the Department and dealt with individual schools within it. Under this programme, the school will gain its strength and will be able to exercise greater freedom and help in making the system more elastic and dynamic. The Department will also gain. It will be able to concentrate its attention on major essentials and can afford to have fewer efforts but at a higher level of competence (p.263).

In order to give impetus to the concept of school complex the Commission further suggested that:

1. The school complex may be used for more effective and standardised methods of evaluation of students and their promotion from classes to classes.
2. It can be used for maximum utilization of certain facilities and equipments which can not be provided separately to each school.
3. The inservice education of teachers in general and upgrading of less qualified teachers in particular may be an important responsibility of schools. Specifically designed trained programmes, film shows, demonstration lessons and other academic activities can be organised at the various schools of the complex.
4. The complex committee may encourage each school to plan its own work in sufficient detail for the ensuing academic year. The headmasters of the school can birng

their plans to the complex committee, discuss them in detail and decide on the broad principle of development in the light of which each individual school can plan its own programme.

5. The school complex can maintain reserve teachers who can be sent to the component schools when the need arises.
6. The school complex can formulate a plan for evaluation the new textbooks, teacher guides, teaching aids and other material keeping the specific need of the community in mind.
7. The school complex may make innovative changes in the prescribed curricular and syllabi to be used in the its complex.

The commission was quite cautions in suggesting the introduction of the school complex on a large scale. It suggested that two precautions which must be taken and which may in [illegible] be the crucial determinants of success of school complex. First of all, careful preparation for the introduction of the scheme and the orientation of teachers are necessary. Secondly no new powers should be conferred upon each school complex simultaneously.

It was in persuance of the recommendations of the Commission and the Education Policy Resolution (1968), some states such as Bihar, Gujrat, Harayana, Kerala, Madhyo Pradesh, Maharashtra, Nagaland, Orissa, Punjab and Uttar Pradesh set up school complexes on experimental basis. But for one reason or the other the scheme of school complex could not takeoff well so as to reach even evaluation stages in most of these states. However, the evaluation reports of the school complex scheme in Kerala, Bihar and few other states reflect a ray of hope for improvement in school education with the help of school education with the help of the scheme of school complex.

Activity Sheet No.3

a) What are the salient features of the 'School Complex'? Enlist a few problem of school education which can be resolved through implimentation of it.

b) What does the National Education Policy-1986 suggest to revitalise the concept of school complex in the changed situation?

Coll
Coll.
Disc

National Education Policy-1986 and the School Complex

Keeping in view the possibilities and potentialities in the scheme and the feedback received from the findings of various evaluation reports of experimental school complex projects initiated in various states, the scheme of school complex is now being revitalized for the purpose of overhauling the system of planning and management of education. It is bound to gain momentum by developing new strategies and guidelines for its effective implementation with the initiation of a nationwide debate on reformulation of a viable and effective education system through the document Challenge of Education – a Policy Perspective (1985), and the National Policy of Education (1986) and its Programme of Action (1986) reiterated that, '(the school complex) will serve as the lowest viable unit of area planning and will form a cluster of institutions in which different institutions can reinforce each other by exchanging resources, personnel, materials, teaching aids and using them on sharing basis'.

It was further suggested that the establishment of school complex will be of two types. In the first type, each middle school will be related o three to five primary schools that exist in its neighbourhood. In the second, eight to ten primary and middle schools in the area will be linked with the secondary/higher secondary school. However a flexible approach need be adopted in sparsely populated, hilly and desert areas, where the number of schools in a complex will be much smaller compared to the number in plain areas. In densely populated areas too, the number of schools in a complex will be slightly smaller than in the average size of the school complex. Special emphasis will be put on flexibility in the organisational design of school complex. While selecting a lead school, the following criteria need be borne in mind:

1. The number of feeder schools in the area and [illegible] nonformal centres
2. Walking distance between the lead school and nonformal education centres which will be normally five to eight kilometers.
3. Adequacy of inputs in terms of staff, building, furniture etc.
4. Academic standards.
5. A lead school will normally be a school of at least five years standing. As a part of the flexible approach the lead school can be in some places at primary level and in others at middle and secondary level.

Activity Sheet No.4

How can teachers contribute for the successful implimentation of the school complex?	Collect Collate Discuss

Some Suggestions for Teachers:

Finally, the following are some important points relevant to teachers who will form the backbone of the syncrhic alliance within the school complex.

1. A school complex will be able to solve the day-to-day problems of individual school teacher.
2. It will be able to make teaching effective by facilitating the exchange of ideas among teachers and schools at different levels, by developing synernic feeling and sharing academic and other resources like enrichment materials. etc.
3. It will encourage teachers' meetings, workshops, demonstration lessons, film shows and seminars to raise the quality of education.
4. It will become possible to arrange exhibition on science, SUPW etc. in schools best equipped within the school complex.

5. Teachers from schools will be able to pay visits to secondary, upper and lower primary schools as ofte[n] as possible to share experiences or providing guidance and support.

6. It will help in evolving academic leadership in teachers and sharing of experiments and innovations in the teaching learning process at local level.

7. Provision of inservice education for subject teachers will be arranged at DIET but the school complex will help in the general orientation of teachers on subjects like value orientation, national integration etc.

8. It will be able to arrange for teachers from one school of the complex to go to another in case of short leave. This will be made by the headmaster of the lead school on temporary basis for a short duration only. Heads of the participating schools may also evolve their own division of responsibility on such matters.

9. If a teacher is transferred or sent on training, the information will be sent by the District Education Officer to the ~~xxx~~ heads of school complexes concerned.

10. It will be able to reduce the travelling distance for teachers on many counts through decentralization of certain relevant powers to lead school headmasters or other heads.

11. It will be able to sort out administrative issues like problems of leave reserve, delay in sanctions etc. at the monthly meeting of teachers with headmasters of concerned schools in which State Education Department and District Education Officer may become available.

12. It will enable teacher to assist the heads in conducting examination.

13. It will facilitate the formation of the norms of greater punctuality, regularity of teachers, their greater involvement in teaching and an improved academic climate.

Evaluation Exercises

Activity-I: Prepare a detailed plan of a school complex which you would like to suggest for your region/area.

Activity-II: Suppose you are the chairman of school complex committee. Enumerate problems you might face in organising the school complex activities. Suggest means and methods you would use to resolve them

Activity-III: Prepare a five days Orientation Programme for organisation of a school Complex for pnticipating teacher of primary and senior primary schools.

Activity-IV: Prepare an action plan for academic cooperation between primary, middle and secondary schools within the framework of school complex to raise the quality of education of your area.

Activity-V: Prepare a plan for organising inter-school/inter-complex competition on (a) sports, (b) cultural activity, (c) exhibition-science/SUPW, (d) literary activities.

Activity-VI : As an incharge of subject matter committee how would you like to proceed for incorporation of certain changes in the curriculum, instructional methods, use of instructional materials for quality improvement in education of your school complex?

Activity-VII: How would you plan to ensure active participation of community in activities of your school complex?

CLEARING HOUSE FUNCTIONS OF IFIC ON RESEARCH AND INNOVATION IN ELEMENTARY EDUCATION

Module No.15

Prof.K.C.Panda

The terminology IFIC has three basic components which are closely related to the clearing house functions viz.

I. Inservice teacher education
F. Field interaction
IC.Innovation co-ordination

Besides these essential functions, the tripartite divison of the role of IFIC in particular and DIET in general can be looked at from three angles.

Training
Resource Development
Action Research

Now the question would arise what should be the clearing house function ? Objectively speaking, the clearing house function should promote and undertake activities which would achieve the objectives of DIET i.e.,

UEE
UAE/NFE

with built in structure for achieving minimum learning levels and ensuring the qualitative change in Elementary Education.

Resource Development:

In DIET, information have to be collected, collated and analysed from various angles e.g.

a) **Research:** The IFIC can conduct research, and collect research findings of others relating to Elementary Education. The research reports can be abstracted in an uniform manner. Metaanalysis can be done and the findings can be kept in storage.

b)Training: The training needs may be identified and a kind of data base be generated to draw teachers for various inservice and preservice training. Training curricula may also undergo changes through evaluation.

c)Innovations:Case Study of institutions, success stories, individuals who have outlives in the villages, noval approaches to reduce stagnation and increase motivation of pupils and build a good climate are some of the innovative measures on which information can be gathered.

d)Action Research: Action Research is a time bound micro-level situation specific study usually arising out of immediate need which can be undertaken and the findings can be discussed. For example, the discipline system in the school, how to increase motivation of pupils. How to raise aspiration etc.

Dissemination

Dissemination has a large implication. Dissemination can be done under training ways. These include (a) prior to dissemination and (b) dissemination proper.

Prior to Dissemination

a) Coverage, Development and Management

This will cover inhouse action research, research on elementary education, data base on teaching personnel, schools, pupils, learning outcomes, educational survey information, Progress and Trend reports etc.

b) Programming System: As the materials will increase in years, Indexing and Abstracting are important. Abstracts may be kept in a common format normally used and indexing by author and subjects as well as titles, so that it can be retrieved.

c) Data base Development: Time and Resource Management are also important in developing a data base. It will be difficult within the IFIC infrastructure to be very optimistic but within the limits of various functions data base are necessary for programme planning.

d) User Service: There should be a provision for utilisation of information stored by teachers, administrators, members of other DIET/State/National level organisations. Hence, the lending system are to be activised and operationalised within the manpower at hand. Getting Feedback from users would be a concrete step for improving the system and some of the important publications be priced on no profit-no loss basis.

Dissemination

The following channels be used for dissemination of the research and innovative practices operative within the DIET.

a) Publication of News letter for use by Elementary Teachers within the DIET - one for each school.

b)Publication of Journal or magazine embodying the findings of research and innovation for use in schools.

c)Broadcast through AIR/TV and other channels i.e., pamphlets, awareness meetings, seminars where the ideas and findings can be floated.

d)Listing of papers available in this Newsletter for the knowledge of readers and procedure of availing these.

These are some of the suggestive steps for IFIC and its clearing House function.

-0-

Module No. 16

MINIMUM LEVELS OF LEARNING IN PRIMARY EDUCATION

Dr.S.T.V.G.Acharyulu

Need for MLL at the Primary Stage of Education

This last decade of the 20th century has witnessed a growing need for laying down and ensuring acceptable minimum standardards of achievement at the primary stage of education. The concern is more with what the child actually learns at the primary stage of education. Primary education should provide relevant and rich experiences, knowledge, skills and values necessary for life in general and for continuing education in particular. Irrespective of sex, caste, creeed, rural/urban locale, or SES background every child in the primary school should be made to acquire:

- functional and useful skills in literacy and numeracy
- fundamental, functional, and comprehensive knowledge about the environment in which he lives.
- the capacity for creative thinking, problem-solving and application of what is learnt.
- values, attitudes, and behaviours conducive to development of character and self-discipline.

Accordingly, every primary school should ensure that every child irrespective of type of school, the geographic region to which he belongs, the language he speaks, and how poor or disadvantaged he is, acquires certain minimum level of learning that may be specified in different curricular subjects and at different stages. Such an achievement facilitates horizontal and vertical mobility of the learners, besides promising comparability of attainment among children studying in primary schools or non-formal centres across the country.

Why Minimum Levels of Learning ?

There is a tremendous increase in the number of Primary Schools. In 1951, we had 2,00,000 Primary Schools and now we have about 7,00,000 Primary Schools in our country. In addition to this, we have about 3,00,000 Non-Formal education centres offering Primary education to the age group 9-14 years. In the In the world as a whole the number of children of the age group 6-11 years range from 850-900 million. In India alone there are more than 100 million kids of this age group. We have a sizable number of primary school students who show considerable deficits in the basic skills of reading, writing and arithmetic. Primary schools cannot disown their responsibility for the decline in student achievement.

Children, right from the primary stage, should be made to grow up with the idea that they should struggle to excel others or to come on par with others of his age or class. They are to be encouraged to make efforts to learn and acquire the basic skills and knowledge in each subject so they can discover that learning can be interesting, rewarding, and exciting. In short, no learning takes place without effort and hard work commensurate with the child's ability. Without involvement in learning, teachers cannot expect their pupils to acquire the minimum skills, concepts, knowledge and abilities. After all it is pupils who must do the learning.

What is Meant by Minimum Level of Learning ?

A basic set of competencies are needed for every student undergoing primary education in order to function effectively in life and to move on to higher stages of education if he so desires. The concept of minimum levels of learning refers to the minimum knowledge, skills, and abilities the student should acquire at any given stage of education. These MLL include both cognitive and non-cognitive aspects of development. The former are easier to conceptualise in definable, observable, attainable and measurable terms. The non-cognitive aspects are amenable to observation and qualitative description. The report of the committee set up by the Ministry of Human Resource Development entitled "Minimum levels of learning at Primary Stage" (1991) published by the NCERT recommended the Promotion of the following nine affective qualities in all children:

- Regularity and Punctuality
- Cleanliness
- Industriousness/diligence

- Sense of duty and service
- Equ lity
- Cooperation
- Sense of responsibility
- Truthfulness
- National Identity

M.L.L. and Equality of Educational Opportunity

The concept of equality of educational opportunity implies that each student is given enough opportunities to grow to the limits of his ability irrespective of sex, race, caste, religion or social class. Many students who have not understood even the basic fundamentals in the prescribed textual subject matter are promoted under the non-detention policy in the primary schools. But the spirit of the policy is not that we do it mechanically to retain children in primary schools. Teachers have to understand that this policy has minimised the growing emphasis on preparing students for the end of the year examination. The non-detention policy should have been accompanised by continuous comprehensive evaluation. Unfortunately this was not done. We need to practise improvement-oriented and not measurement-oriented approach to evaluation. This gives enough scope for teachers to concentrate an each child's achievement in terms of the MLL and the objectives of the curriculum. Teachers must understand the fact that children have unequal mental ability and learn at different rates and pace. Instructional programmes should develop in each child the ability to read, to write clearly, to calculate, to think critically and logically, and to acquire knowledge of the world. The concept of MLL evolved as a result of such a realisation. The absence of minimum competency standards is responsible for most of the ills and problemsx of education. As Rickover (1985) has said "Quality education cannot flourish without generally accepted standards of academic performance" (P.156). What we need and desire most is good education for all children. All students undergoing elementary education should achieve a certain minimum level of learning.

How to formulate the Minimum Levels of Learning ?

It is necessary to lay down clearly what these minimum levels are and then design assessment procedures to determine whether students have achieved them or not.

Curriculum for the Primary stage of education is designed by agencies such as the Central Board of Secondary Education at the National level and the Boards of Education/ SCERTs at the State level. These curricula are assumed to include the minimum levels of learning at the primary and upper primary stages of education. On the basis of existing curriculum, minimum learning levels may be defined at the national level for the primary stage. All children studying in different States/Union Territories are to be helped to gradually move towards achieving the National Level MLL.

The curriculum for the Primary stage of education differs from State to State and so it is desirable to follow a decentralised approach in formulating MLL. At the State level, MLL may be formulated for the primary stage of education. It is possible that there may be differences between the National and State level MLL. The idea is that every State should gradually ensure that most children move towards achieving the National level MLL. This would result in comparability of standards of Primary education across the country. The achievement levels of students within a State may like-wise differ from district to district, and the District Education Officers, DIETs, and Block level Officers etc., have to render necessary support to the primary schools so that their children move towards achieving the MLL laid down at the State and National levels respectively.

It is desirable to define not only stage-wise minimum levels of learning. The class-wise minimum levels of learning could be developed by DIETs/SCERT by involving teachers working in Primary schools, Inspectors of schools, and others associated with Primary education. The DIETs have to develop necessary tools for assessing existing achievement levels and monitoring the progress of pupils towards State level and National level MLL.

The document entitled "Minimum Levels of Learning at the Primary Stage "(1991) has formulated class-wise MLL for the Primary stage in Languages, Environmental Studies, Mathematics and these are being tried out in different States.

Minimum Levels of Learning and the Teacher

It is a happy augury that MLL are seen as an integral part of our national system of education. Whenever a skill or a textual lesson is taught it is done with the objective of making students acquire a reasonable mastery over it. It is possible for every teacher to formulate lesson-wise MLL on the basis of his knowledge of the attainment status of pupils. This can be done for each class and in each subject. Such an activity would enable the teacher to see whether his pupils are moving towards the District, State and National level MLL. It is possible that the lesson-wise MLL formulated by a teacher for a given class may differ from those determined by another teacher. Therefore, at the district level the DIETs in collaboration with other agencies within the State/District involve experienced subject specialists/teachers, curriculum experts, educational administrators and supervisors associated with primary education and non-formal education and formulate such MLL for use by teachers. It is important to note that the lesson-wise MLL are relevant, meaningful, attainable, observable and measurable These MLL could be linked up with the district and state level MLL.

In some subjects it is possible to conceptualise knowledge and skills in a heirarchical and quantitative terms while in others it is difficult. Some non-cognitive characteristics such as values and attitudes which children acquire during their education in the primary school cannot also be conceptualised in heirarchical and quantitative terms. The minimum performance levels should include both quantitative and qualitative aspects of cognitive and non-cognitive areas.

Minimum Levels of Learning should not become Maximum Levels of Learning

There is apprehension that once the MLL are formulated both teachers and students would set their goal on minimum standards and be satisfied with it without bothering to progress beyond. There is also the baseless fear that MLL would be unfair to children of minority and disadvantaged communities. Infact these children are the ones who will be greatly benefitted from the MLL. It is wrong to expect less from such children and MLL is a means to help them get a fair education.

Regarding the apprehension that the minimum learning level (MLL) would become the maximum, it is not true that most teachers would reduce the content both by breadth and depth and prepare all students to meet simply the minimum competency standards and nothing more. Much depends on how we orient the teachers in this regard.

Minimum Levels of Learning and Minimum Competency Testing

MLL refers to what children should know and be able to do in each subject at each stage of education. Keeping these in view, the teacher has to formulate his instructional objectives for each textual lesson. Instructional objectives provide precise, observable and measurable statements of goals. They state exactly what the students are expected to do after completing the proscribed learning activities. Some of these objectives should be such that they incorporate the minimum competencies envisaged. For each lesson the teacher has to prepare instructional objectives and these should go obviously beyond the objectives related to MLL so that the lesson is stimulating and challenging to the gifted students as well. Any child falling short of the objectives pertaining to MLL should receive the attention of the teacher for remediation. The teacher has to decide his own course of action to help such children improve their performance and attain the MLL.

A sizable number of children by and large, display the minimum competencies laid down in the MLL. The attainment of MLL by the students can be known through tests carefully developed by the teacher for the purpose. Such tests go by the name "Minimum Competency Tests (MCTs)". For each competency, the teacher prepares 10-15 test items and gives the students. In due course the teacher himself can develop his own item bank for each competency in each subject and for each class and use the same in his continuous comprehensive evaluation and for ensuring the achievement of MLL by students.

These MCTs are to be designed in such a way that they assess not only the attainment of the MLL by each student but also the extent of excellence attained by the students in the subject over and above the MLL. However, one should guard against the tendency to make tests ridiculously easy so that an acceptable percentage of students tested can pass the requirement of MLL. MLL and MCT go hand in hand.

Advantages of MLL

- They give a sense of direction to the teacher in his teaching
- They enable the teacher to assess the achievement of students in relation to objectives.
- They help the teacher in assessing the strengths and weaknesses of his students and provide necessary feedback and remedial programme.
- They make the teachers demonstrate the competencies which they expect from their students and thus enable them to serve as models for students to emulate.
- They enable the teacher to realise the need to have a strong content base and knowledge of teaching strategies.
- Students progress towards State level and National level MLL results in great satisfaction and motivation for the teachers.
- They make the teachers accountable for student learning and achievement.
- They enable the teachers to formulate gradually higher levels of learning for pupils to achieve rather than merely satisfying themselves with the MLL.
- They enable the teacher to assess their own teaching styles and effect improvements in the teaching of basic competencies and beyond.
- They enable the teacher to develop suitable tests and item banks for assessing student progress towards MLL as well as higher learning outcomes.
- They help the teacher in motivating students to work harder and attain the basic competencies laid down.
- Every teacher knows what minimum knowledge, skills and abilities each student should display at the end of each textual lesson in each subject and at the end of the year as well as at the end of the primary stage.

- MLL enable the teacher to see his role more clearly as a facilitator of learning and to reassess his own teaching styles and assessment procedures.
- MLL provide insights to teacher educators to plan their preservice and inservice teacher education programmes more realistically and purposefully.
- MLL enables the administrators and supervisors to decide what to look for while assessing teacher performance.

Targets for MLL

We have also to set targets realistically for ensuring that most children undergoing education at the primary and upper primary stages achieve these minimum competencies. The targets for MLL suggested by NIEPA (1990) reflect that "(a) 70% of children, including atleast 60% girls of every disadvantaged group, pursuing elementary education, will achieve the minimum levels of learning by the year 1995; and (b) 80% of children, including atleast 70% girls of every disadvantaged group, pursuing elementary education, will achieve the minimum levels of learning by the year 2000". (P. 29).

Implementation of MLL: The Ministry of Human Resource Development has been encouraging a number of Governmental and non-governmental agencies by fundingp projects for implementation of MLL. These projects are being progressive in the States of Rajasthan, Gujarat, Maharastra, Karnatak, Punjab, Madhya Pradesh and Other States, especially in the Eastern Region are expected to take up the implementation of MLL in a big way. NCERT and Regional College of Education have been doing their best in the implementation of MLL.

ELEMENTARY TEACHER EDUCATION CURRICULUM

TEACHING OF HEALTH AND PHYSICAL EDUCATION

Objectives:

The National Curriculum for Primary and Secondary Education-A Framework (1988) emphasises that "health and physical education should aim at enabling the child to kjow that harmonious development of body and mind is essential for good health which include, physical fitness, mental alertness, emotional balance, social productivity and adjustment". Therefore, health and physical education becomes one of the most crucial factors of individual progress and national development. Health and physical education should, therefore, enable an individual to raise his health status as well as that of his family, community and environment.

Health and physical education is an integral part of the total school education. Scientific researches in this area and emerging social needs demand that corresponding changes should be incorporated in the teacher education syllabus at the elementary level so that teachers, in turn, can develop in children desired understanding, habits, skills and positive attitudes. The elementary teacher education should also enable the prospective teacher to imbibe healthy habits, positive values and balanced attitude so that he/she becomes the best example for the young developing minds put under his/her charge.

The student teacher should be able to:

1. Appreciate the need and importance of health and physical education in the total curriculum.
2. Plan, organise and conduct activities and practices relating to children's health, sports and games, etc. directly related to the life-style and environment of children.

3. Identify health practices under different areas of health education.
4. Practise, demonstrate and supervise skills involved in health practices.
5. Arrange facilities fordeveloping health practices with the help of the community and educational functionaries.
6. Prepare and select suitable teaching strategies and aids for effective curriculum transaction of health and physical education.
7. Identify his/her role and responsibilities in the total school health programme for healthy school environment.
8. Observe deviations among children.from normal health and provide firstaids for minor ailments and refer other cases to parents and health workers.
9. Encourgge the older students to help, guide and supervise younger children, their siblings at home fordeveloping health practices to raise health status and prevent sickness.
10. Arrange healthy recreation and to inculcate the spirit of sportsmanship.
11. Design and use simple tools to evaluate knowledge, practices and attitudes.
12. Appreciate rich cultural heritage of India in the area of health and physical education, specially in relation Yoga.
13. Spot out talent in boys and girls and devise means to promote it.

Guidelines for Selection of Course Content:

Elementary stage covers the students from I to VIII standards; the age group is 5 + to 13 + years. The duration of the teacher education programme is two years. Five percent of the total time is allotted to health and physical education. This comes to 120 hours in two years, i.e. 60 hours per year. The course content of health and physical education as a core subject should be so spread that it is equally distributed in both the years.

The pupil teachers who come for training have completed at least 10+2 level and they are expected to have acquired the basic concept of health and physical education as it was their core subject up to X standard.

The syllabus for the teacher education is so devised that it fulfils the physical, mental, social and professional needs of the pupil teacher. The pupil teachers are to be enabled to handle the allotted syllabus efficiently and effectively.

The various areas which are to be included in the course are health education, physical education, recreational activities and yoga. All these areas may be given reasonable weightage out of the total time available. Care may be taken to ensure that the syllabus remains integrated. The syllabus is formulated in such a way that it is transacted in a playway and activity-oriented method.

Efforts should be made to develop skills and competencies in the pupil teacher to enable him to develop indigenous/improvised teaching aids with the locally available material taking into consideration our rural cultural heritage.

While imparting instructions of yoga to the student teacher, it should be underlined that learning and teaching of yoga should not remain confined to a few asanas only. It should be emphasised that yoga education loses its significance if values like truth, cleanliness, contentment, honesty, non-violence, etc., are not made a part of one's daily life. Yoga teching therefore requires due emphasis on values contained in yama and niyama.

Adequate weightage may be given to skill in teaching health and physical education. The evaluation should be continuous, valid and objective.

Equipment and Resources:

For the effective transaction of the content, it is suggested that the following resources be made available to the training institution.

Physical Facilities:

a) Gymnasium hall
b) Play field - 2 acres
c) Safe drinking water
d) Sanitary facilities
e) Washing facilities.

Library:

Well equipped library having current school books, reference books, curriculum guides and technical journals.

Equipment and Apparatus:

- Charts and models on health and physical education and on Yoga.
- First-aid outfit.
- Height measuring stand, weighing machine, vision screening charts.
- Rubber, cricket, volley ball, cork balls, and footballs.

- Net for various games.
- Musical and band instruments.
- Durries and matresses.
- Inflator.
- Measuring tape.
- Long ropes for marking, iron pegs and wooden pegs etc.
- Overhead projectors.
- Public Address (PA) system.
- Art material.
- Take-off board
- High jump stand, cross bars for high jump.
- Sea saw, ladders, slides, swings.
- Round about.
- Whistles, batons for relay races.
- Stop watches, steel measuring tapes.

SYLLABUS

FIRST YEAR 60 Hrs.

UNIT 1: Health Education 20 Hrs.

A. Concept of Health

- Meaning and scope of health and health education
- Factors influencing health.

Activity:

1. The student teacher will interview different categories of persons allotted to him/her and will try to find out the concept of health the particular category has. They will discuss the findings and evolve the scientific concept.

2. The teacher educator will divide the class into groups. Each group will be asked to interview one set of people. The teacher educator will collect report and initiate discussion and help the student teacher to reach a conclusion.

GUIDELINES AND SYLLABI

B. School health programmes-

a) Healthy school environment
b) Health instructions
c) Health services

Activity

1. The student teacher will develop a proforma to assess the status of school health programme and practices in school, discuss about strength and weaknesses of school health programme on the basis of observation and suggest means to further strengthen it.

2. The teacher educator will help in developing a proforma to assist in school health programme. He will supervise the administration of tool. He will collect information and discuss.

C. Personal Cleanliness:

- Importance of personal cleanliness
- Care of different parts of the body

Activity:

1. The student teacher will observe general appearance and grooming. He will find out the methods of cleanliness. He will be asked to prepare charts, question box and health wheel on personal cleanliness. All the student teachers will also be

required to undergo the physio-medical examination.

2. The teacher educator will provide facilities for observation and physio-medical examination.

D. Environmental Cleanliness:Need,Significance and Management of -

- Safe drinking water.
- Sanitary facilities.
- Heat, light and ventilation

Activity:

1. The student teacher will conduct a community survey and list available sources of safe drimking water, the method of disposal of waste, etc. He will record how to make water safe for drinking. Each 'HOUSE' will be given the responsibility for environmental cleanliness and for maintaining proper light and ventilation in the classroom in rotation. He will take part in activities ofor celebrations of health days.

2. The teacher educator will divide the class into groups and allot areas to each group for survey, supervise surveys and regulate discussions. He will allot work for the celebration of health days and guide the students for the same.

E. Food and Nutrition:

- Nutritive components of food.
- Balanced diet.
- Eating habit
- Malnutrition and its effects.
- Identification of locally available foods and their nutritive value.

Activity:

1. The student teacher will conduct a survey of the market and collect pictures of food items and plan a balanced diet. He will prepare balanced diet chart, another chart for eating, cooling and serving habits in vogue at home, community and social functions. He will collect pictures of various children suffering from various deficiencies and disorders and conduct the survey among pre-school children and interview Anganwadi workers to find out their experiences about cooking and serving foods.
2. The teacher educator will collect report of surveys and regulate discussion. He will also guide the group in preparation of teaching aids/materials on balanced diet and components of foods.

F. Safety Education and First_Aid:

- Rules of road.
- Precautions to be observed while walking, handling sharp edged things, electrical gadgets.
- Safety at home and school, safety while playing.
- First aid for drowning, poisoning, burns, shocks, fainting and snake bite.

Activity:

1. The student teacher will find out the places prone to accidents at home, school and community. He will classify the places specially for falls, burns, drowning, bites, poisoning and shocks, etc. He will also identify the type of injury which can occur in each case and suggest first-aid . He will prepare scrap

book in this regard. He will also find out the agencies which supply material for safety rulew such as fire brigade, traffic police or any N.G.O. or G.O. He will keep the records of the accidents in and around the school and maintain first aid register.

2. The teacher educator will divide the class into groups, each group will be asked to work in the area of home, school or community. He will guide and regulate the discussion and role play. He will also help in identifying N.G.O. and GOs.

UNIT II: Organisation of Recreational Activities 8 Hrs.

a) Immitations-of frog, rabbit, butterfly, elephant dog, lion, aeroplane, train etc.

b) Free Play - Simple tag games-chain tag, cat and r

c) Rhythmics- Simple dancing steps, clapping with rhythm, side steps.

d) Tumbling- Rolling-forward and back ward, cart wheel, camel roll.

e) Jungle Gym-Sea saw, ladder, slide, swings, round about, etc. For younger children above activities are considered as motor development activities.

Aactivity

1. The teacher educator will organise relay races for the pupil teacher like running by imitating the actions of different animals.
2. The teacher educator will divide pupil teacher into different groups and organise competitions in tag games and rhythmic activities.
3. The student teacher will actively take part in relay races and other competitions.

UNIT III: Modern Concept of Physical Education 22 Hrs.

A. Theory

(a) Meaning, aims and objectives of physical education.
(b) Classification of physical education activities.
(c) Organisation of intramurals and extramurals play-days.
(d) Methods of physical education.
(e) Measurement and evaluation for
 i) Jumps, throws etc.
 ii) Officiating

Activity for Teacher Educators:

The teaher educator will divide the student teachers into two groups and onegroup performs ac-tivities like jumps, throws and the other group will measure and evaluate and vice versa.

For Student Teachers*

The student teachers will take part actively in the performance and officiating turn by turn.

B. Practicals

a) Set drills- Dumbells, flag drill, wand drill
b) Callisthenics-Physical exercises-tables of at least 6 to 8 exercises.
c) Drill & Marching-Sawadhan, Vishram, Baie-Dahina piechhe Mur, Tej chal, Dahine Baie chal, quadam tal.
d) Lead-up Games -(a) Toy games (b) Keep it up volley ball (c) 21 passes basket ball
e) Relay Races -(i) Tunnel ball relay (ii) Arch ball (iii) Horse and rider relay
f) Indigenous Game:Kho-kho, kabaddi-tactics and techniques, rules and regulation.
g) Small area minor games:-(i) Dodge-ball(ii) Dog and bone (iii) King of the road

h) Combatives-Hand pull, hand push, toe tough, back to back lift.

i) Athetics- (1) Short sprints.

  (i) 20 meters, 50 meters & 100 meters race
  (ii) Jumps
  (iii) Throws

(More emphasis should be laid on basic motor skills like running, jumping catching, etc.).

Activity

1. The student teacher will take active part in each activity which teacher educator has demonstrated.
2. The teacher educator will assist the student teachers to prepare a set drill for giving a demonstration on play days.
3. The teacher educator will divide the student teachers into different houses and conduct intramurals competion in lead-up games, marching and relay races.

UNIT IV: Yoga 10 Hrs.

Educational significance of yoga, misconceptions about yoga, a brief descsription of yam; niyam, asan and pranayam. The theory and practice of following asanas.

A. Sitting Posture Asanas

1. Sukhasan
2. Padmasan
3. Vajrasan
4. Shinhasan
5. Shashakasan
6. Supta Vajrasan

B. Standing Posture Asanas:

1. Tadasan
2. Tikonasan
3. Vrikashasan

C. Lying Posture Asanas

1. Bhujangasan
2. Makarasan
3. Shavasan

D. Pranayams

1. Bhramari
2. Chanting of Pranavs

Activity:

1. The student teacher will prepare a chart of the asan performed during each class with its benefits.

2. The student teacher will practise all the asanas and pranayams five times daily, early in the morning.

3. Chanting of pranavs will be done before and after doing asanas in each class.

SECOND YEAR

UNIT I:Health Education

60·Hrs.

A. Communicable Disease

a) Mode of transmission of communicable diseases
b) Symptoms of communicable diseases
c) Prevention, measures and control

Activity :

i) Student teacher will go for community survey to find out commonly occuring diseases inthe families, among children, adults and old people, and measures taken for their management.

ii) Preparation of charts: how diseases spread and measures to prevent them by highlighting individual's role.

iii) Preparation of messages and flash cards on prevetion of specific diseases.

iv) Role play.

v) Symposium on prevention of communicable diseases

vi) The teacher educator will divide the student teachers into groups and each group will be asked to interview ten families. Then he will collect, compare and discuss. He will see that every student teacher takes part in various acticities.

B. Pollution :

i) Type - air, water, noise
ii) Health hazards of different types of pollution
iii) Control of pollution.

Activity :

1. The student teacher will observe and list out things which cause different types of pollution. How these can be prevented by individual or community action. Charts will be preparéd in concerned area assigned by the teacher educator.

   The teacher educator will divide the student teachers into four groups and will allow for observations on observation sheet.

C. Health Habits

Concerning-

i) Personal cleanliness
ii) Environmental cleanliness
iii) Food and nutrition
iv) Prevention and control of diseases
v) Interpersonal relationship
vi) Safety education
vii) Child care

Activity :

The student teacher will prepare (a) the health code for the institution and practise teaching school, (b) charts, flash cards, checklist on health practices (c) checklist and absence of health practices of children of practice teaching school. This will be used to revise the health code. The teacher educator will help the student teacher to finalise the health code. He will supervise the observation of health practices by student teachers in practice teaching schools.

D. Postures:

Importance of rest, sleep and postures, gains of good postures, general postural deformities and remedial measures.

Activity :

1. The student teacher will discuss the time table in force and review it, demonstration of right posture, preparation of charts, listing the time of going to bed and getting up. Observation of children and recording deviations from normal health.

2. The teacher educator will provide a copy of time table in force to student-teachers for discussion. He will ask the students to demonstrate, correct them, supervise the posture of trainees throughout their training. He will also help the student teacher to find out the reasons of bad posture and take remedial measures.

E. Primary Health Care Set up and Health Organisations

(a) Primary health centre (b) UNICEF (c) FAO (d) WHO

Activity:

1. The student teacher will prepare a chart in primary health care set-up, organisation of WHO Day, World AIDS Day, Anti TB and Environmental Conservation Day.
2. The teacher eddcator will coordinate the panel discussion. He will brief about objectives and areas of discussion. He will arrange debates, poster and essay competitions, help the pupil teachers in putting up an exhibition and guide them to collect exhibition materials from local agencies.

Unit II: Recreational Activities

1. Community singing (two songs)
   (a) One song of local language
   (b) One song of any other language
2. Folk dance -any one local or regional folk dance along with the community song.
3. Minor games-find the leader, musical chair Dog and bone, Pittho, Vish - Amrit, Good Morning.

Activity :

1. The student teacher will actively participate in all recreational ac-tivities under the guidance of teacher educator.
2. The student teachers will be asked to present any other songs or dance at the occasion of annual day and other celebrations.
3. The student teachers will prepare charts/ albums and collect a number of songs in any languages.
4. The teacher educator will divide the student teachers into different groups and organise competitions.

Unit III: Modern Concept of Physical Education 22 Hrs.

Theory

1. Physical exercises and their benefits in terms of physiological functions.
2. Physical fitness and its components.
3. Organisation of intramurals and extramurals on different days.

Practicals:

1. Set drills - hoop drill, lazim,pole drill
2. Drill and Marching - Sammne saloot, Dahine baie ghoom, visarjan.
3. Callisthenics-Physical exercises,table of at least 6 to 8 exercises.
4. Lead-up games
   - Keep the shuttle up

-One bounce volley ball
-Captains ball (Basket ball)
-5 min foot ball
- 10 passes tenicoit

5. Team Games-volley ball, foot ball, hockey and badminton-rules and regulations.
6. Athletics-revising first year events.
7. Relay race - zig-zag relay race .
   - Obstacle relay race
   - Arch and tunnel ball relay race.
8. Marking of courts and fields-Kabaddi,Kho-kho, Volley ball, foot ball, hockey, badminton,field.
9. Marking of tracks.

Activity :

1. The student teacher will demonstrate any one set drill and marching drill on play days.
2. The teacher-educator will divide all the pupil teachers into different houses and the student teachers will take part in intramurals competitions.
3. The student teacher will take ac-tive part in planning of intramurals, play days etc.

Unit IV: Yoga 10 Hrs.

A. Sitting Posture Asana

1. Padmasan
2. Yoga mudra
3. Gomukhasan
4. Pashimotanasan
5. Halasan

B. Lying Posture Asana

1. Sarvangasan
2. Dhanurasan
3. Shalabhasan
4. Pawanmuktasan
5. Shavasan

C. Pranayams (Breathing Exercise)

1. Bhramari
2. Chanting of Pranavas

Activity :

1. The teacher educator will demonstrate the whole asan and again demonstrate each part and ask the pupil teacher to follow each part and perform asanas and repeat.
2. He will ask student teachers to prepare charts on 5 asanas.
3. The student teacher will take part actively in the performance of asanas.
4. The student teacher will prepare a chart of the asanas performed during each class along with its benefits.
5. The student teacher should also practise all the asanas and pranayams five times daily early inthe morning.
6. Chanting of pranavas will be done before and after doing asanas in each class.

*****

PHYSICAL AND HEALTH EDUCATION IN SCHOOLS

OBJECTIVES AND CONTENT: PRIMARY STAGE

OBJECTIVES:

Objectives of teaching Physical and Health Education at the primary stage are:

Cognitive Domain

- To know and understand the external parts of the human body and their functions.
- To understand that adequate nutritious food is necessary for the growth of the body and maintenance of health.
- To understand the importance of cleanliness and sanitation of his surroundings.
- To understand the importance of taking care of different parts of the body
- To recognise the common diseases prevalent in the locality and understand their preventive and control measures including immunization.
- To establish relationship between nutritional intake in daily diet and nutritional disorders and deficiency diseases
- To recognise the need and importance of personal cleanliness for healthful living
- To develop delementary knowledge about first-aid and care of the sick at home
- To learn the concept of safe water and develop the method of techniques of keeping the water safe
- To develop an understanding of personal and community health practices such as proper toilet habits, disposal of garbage and disposal of waste water etc.
- To understand the health needs, importance of rest, sleep exercise, cleanliness and recreation for the maintenance of health

- To identify various processes and techniques to be followed for the pro~~t~~tection and care of various body parts.
- To understand that smoking and chewing tobacco is injurious to health.
- To know the importance of working in a team
- To know the basic terminology ased in group activities like mass drill, lezium, dances etc.

Psychomotor Domain

- To keep various part of the body clean
- To demonstrate to younger sibling, how to clean various parts of their body and clothes
- To select and identify food items according to their nutritive value and to eat food in proper combinations from all major food groups
- To participate in cleanliness compaigns in schools and community
- To take necessary safety precautions in day to day life and take appropriate first-aid measures at the time of accidents and emergency
- To provide proper care of sick and young children
- To participate in food preparation, food serving, to follow proper food sanitation practices and avoid wastage of food
- To demonstrate simple techniques of making water ~~f~~ safe for drinking
- To acquire the basic skills: walk, run, hop, leap, jump, skip, slide, gallop etc.
- To be initiated into a game or sport like table tennis, swimming etc.

Affective Domain

- To take interest in fidning out how different external parts of the body function.
- To take interest in selecting and develop taste in eating food from different food groups and finding out what kinds of food are available in the locality.
- To appreciate the need of avoiding wastage of food at all levels
- To appreciate the importance of physical, mental and social well being.
- To acquire a taste for the food and beautiful things in the environment and develop interest in finding out how the environment can be kept clean and beautiful
- To appreciate the importance of consuming safe water
- To appreciate the role of home, school, community and other agencies in promoting healthy living
- To appreciate the importance of first-aid and care of the sick
- To appreciate the harmful effects of smoking and chewing tobacco.
- To acquire the ability to enjoy group games or activities
- To appreciate success and tolerate failure
- To cooperate with others
- To obey rules of the game

CONTENT: PHYSICAL EDUCATION

1. Free Movements
   (a) Walking, running, jumping, skipping and jogging
   (b) Freehand exercises:exercises for trunk bending, twisting, throwing and catching, kicking and lifting

2. Marching
   Single line, left turn, right turn, marching in twos and threes.

3. Rhythmic Activities

(a) Fundamental movement, wherever possible, to the accompaniment of music

(b) Locomotor coordination: walk and hop, walk and leap, hop and side walk, gallop and walk

(c) Action to be performed to rhythm body coordination, bend and stretch, swing, push, pull, strike and dodge.

(d) Exercises on the balancing bench to the tune of music, walking, running, sliding, balancing, leg swinging, forward and backward

(e) Story dance: pick out stories pertaining to the region and mime the story to music

(f) Dances with apparatus: fan dance, ribbon dance, scarf dance, ball dance, bouquet dance (Any two)

(g) Action songs: imitate harvesting, milkmain and boatmen's songs and regional songs

(h) Work dances: occupational harvesting, plucking of flowers, howing and fishing woodcutting

(i) Interpreting music: solo dance, group dance and partner dance

(j) Folk dances: folk dances of the region, folk dances of other regions, and folk dances of other countries (Indian- Tipri naritya of Gujarat, Machwa naritya of Maharashtra, harvest dance of Rajasthan, desh ki prashansha naritya of Bengali; Western Maypole dance of UK, square dance of USA, Irish Jig, dance of Ireland, and Scottish Reel Dance of Scotland.

(k) Apparatus Drill: lazium, wand, dumble and ribbon

4. Imitation, story plays and mimetics (only two)
   - (a) Imitation: Elephant, frog, rabbit, lion, train, motorcar, bullock cart, dog etc.
   - (b) Mimetics: Dog, cat, horse gallop and elephant walk, ducks bears.
   - (c) Story Plays: Fox and the Grapes, the Honest Woodcutter, the Ungrateful Lion.

5. Games

A. Small Area Games:
   - (a) Cat and rat, snatching the ball, follow the leader, bean beg toss, in the pond, on the bank.
   - (b) River and circle, crocodile can't catch me, blindman's bluff, simple tag and variations, and what is the times Mr.Wolf.
   - (c) Raja-Rani, lion and the cave, find out the leader, comic tag, a number game.
   - (d) Crows and cranes, fire on the mountain, chair tag, find your partner, good morning, bean bag scramble, free and caught, come with me.

B. Leadup Games (Any two)
   - (a) Circle kho, line kho, pin football, football, circle football, cricket, tennis ball, tennikoit (Class IV & V only).
   - (b) Kabbadi, kho-kho, football, mini volleyball, badminton, hockey, swimming and cricket (Classes IV & V only)

6. Gymnastics(Any two)
   - (a) Running at the signal to find a lonely place, arm circling, becoming as tall and as small as they can waving body like branches of a tree, balancing on one leg, swinging arms, action on riding a bicycle(Class I).
   - (b) Moving the body and arms freely, leap frog, forward roll and backward roll (Class II)

(c) Repeat of the previous class work, rabbit jumping on the signal, developing the posture of sitting, standing lifting, bending and stretching straddle, jump and crunch sitting on single, forward/backward roll, money walk and cart wheel. (Class III).

(d) Repeat of the previous classwork, shoulder roll, cart wheel, balance walk, double roll, wheel and barrow (Class IV)

(e) Repeat of the previous classwork, hand balance, leg balance, knwe work, dive and roll, vault work, front roll, back roll and pyramids. (Class V).

7. Simple Combatives (Any two)

(a) Back to back fight, back to back stick pull, pushing into the pit, climbing (Class I)

(b) Revision of the previous classwork, drake fight, cock fight, lame duck fight, stork wrestle and knock over club. (Class II).

(c) Revision of the previous classwork, hand wrestle, push off the bench, stepping on toes, knee slap. (Class III)

(d) Cock fight, back to back push, hand to hand push, shoulder push. (Classes IV & V).

8. Throws

Ball throw and Obstacle Race (Classes IV & V)

9. Athletics

Boys	Girls
100 Metre Race	50 Metre Race
200 Metre Race	100 Metre Race
400 Metre Race	200 Metre Race
High Jump	High Jump
Long Jump	Long Jump

10. Yogic Exercises (Any Three)
   - (a) Padamasan
   - (b) Vajrasan
   - (c) Paschimotanasan
   - (d) Tadasan
   - (e) Chakrasan

(Classes IV & V)

CONTENT : HEALTH EDUCATION

1. Personal Hygiene

Developing habits of:

- (a) Washing hands after toilet
- Avoid walking bare foot specially while going for urination and defecation to avoid worm infection.
- (b) Taking bath daily or as often as possible to be attractive to others and to have a feeling of freshness.
- (c) Cleaningi teeth every morning and immediately after food and also before going to bed.
- (d) Washing undergarments everyday and always wearing clean under garments.

2. Environmental Hygiene
   - (a) Drinking only clean water and helping to keep the drinking water clean and safe.
   - (b) Avoid taking bath or washing clothes and cleaning utensils in drinking water.
   - (c) Always using urinals and sanitary latrines for call of nature
   - (d) Participating in cleanliness campaigns; washing hands face, feet after doing cleaning job and not accepting any food or drink before wash.

3. Food, Sanitation and Hygiene
   - (a) Observe healthy and clean eating habits at
     - i) regular hours
     - ii) no hurry or no worry while eating
     - iii) cheerful disposition
     - iv) limiting eating between meals
     - v) no overeating
   - (b) Eating food suitable to one's needs for different seasons
   - (c) Encouraging not to waste food and to clean food utensils properly.
4. Exercise, Rest and Sleep
   - (a) Taking rest when tired and fatigued.
5. Immunisation
   - (a) Willingly accept the immunisation arranged at the school
6. Safety and First-Aid

   Observing following safety rules while playing and working
   - (a) Staying at safe distance from fire, river, well, pond and other water sources
   - (b) Walking on the safer side of the road, street and lane
   - (c) Refrain from playing with sharp instruments like knife, scissors, blades, broken glass pieces; and sharp pointed articles.
   - (d) Observing the basic principles for first-aid like notifying the accidents to the nearby adults, to give a helping hand to the injured etc.

....

PHYSICAL AND HEALTH EDUCATION IN SCHOOLS

OBJECTIVES AND CONTENTS: MIDDLE STAGE

OBJECTIVES

Objectives of teaching Physical and Health Education at the middle stage are:

Cognitive Domain

- To recognise the various organ systems and state their functions (including the process of reproduction).
- To discuss the concept of nutrients and other constituents of food and their value in daily diet
- To select appropriate food items in order to prepare a balanced diet;
- To state the causes of deficiency diseases and establish their relationship with deficiency of specific nutrients
- To differentiate between proper and improper health, exercise rest, recreation, relaxation, sleep, postures, safety food-handling and care of body parts (especially sense organs), community living and getting along with others, child care practice to assist parents in the care of younger brothers and sisters to protect and promote their health.
- To analyse situations and conditions responsible for making food and water unsafe for human consumption
- To take measures to protect food and water from contamination and spoiling
- To identify factors and conditions influencing his or her own health and that of others
- To recognise common personal, family and community health problems and seek help from teachers and parents to solve them

- To recognise modes of spread of communicable diseases and measures taken for protection from these diseases
- To compare and contrast characteristics of growth and development of boys and girls and establish difference in their growth pattenns while growing from boy to man and girl to woman
- To classify personal and community health practices conducive for healthy environment in home, school and community
- To recognise ill effects of tobbaco, alcohol, drugs and narcotics or individuals health and family life
- To develop skills in providing first-aid in athletic and other common childhood injuries that occur in the home, school and outside home and school
- To know about qualified health functionaries practising in his or her community to seek help when needed
- To develop organic fitness
- To cultivate habits of engaging in appropriate exercises to meet immediate and future health needs
- To develop neuro muscular skills and to promote the ability to perform work with ease and grace
- To prepare himself for making worthwhile use of major time by acquiring knowledge of sports for the purpose of participating, observing, appreciating and enjoying them .

Psychomotor Domain

- To develop skills of taking care of eyes, ears, teeth and other organs of body
- To take safety and first-aid measures during accidents and emergencies in the play field, school and home
- To demonstrate various techniques and procedures of food preservation and purification of water for drinking

- To provide essential care to the sick at home as directed by the physician or parents
- To participate in activities for improving sanitary conditions in school, home and his her locality
- To observe socially accepted norms of behaviour in day to day life
- To enable individuals to practise socially acceptable behaviour patterns
- To participate and take interest in atleast two major games of his/her choice

Affective Domain

- To apply scientific health knowledge and understanding to solve health problems in home and school
- To prefer healthy practices in day to day situations and show confidence in scientific principles
- To reject superstitions and fads
- To believe that prevention is better than cure
- To rely on scientific medicine
- To appreciate efforts of governmental and voluntary organisations for achieving health for all through community participation
- To develop attitudes of cooperation and good sportsmanshipand fair play
- To cultivate such traits of character as self mastery, discipline, courage and confidence
- To develop a sense of patriotism, self-reliance, and desired attitudes for being helpful to others

CONTENT : PHYSICAL EDUCATION

1. Callisthenics

Arms, trunk, abdominal, balancing, twisting, agility/ coordination exercises. Two exercise tables of six exercise each of four counts are to be arranged in a rythmic sequence.

2. Drill and Marching

Quick march, turning while marching and practice of previous work

Change the step on march, double march, salute and salute while marching, open order and close order

Changing direction while marching and changing steps while marching, dismissal

3. Rhythmic Activities

(a) Any three local folk dances (stepping), any two dances of other regions

(b) Any three folk songs/regional songs with action

(c) Apparatus drill: lezium, dumble and wand(Four exercises each)

4. Gymnastics

FOR BOYS

(a) Ground Work: hand spring, hand stand, cart wheel

(b) Vaulting over a box as wolf vault

(c) Parallel Bar - dips, swings, shoulder balance, and chest balance

(d) Roman Ring- leg raising upwards, hand circle forward and hand circle backward.

FOR GIRLS

(a) Matwork: forward roll, backward roll: and cart wheel

(b) Beamwork: Walk with hands on chest, walk and turn, walk and knee bends, walk on the beam with arms in yard position

5. Athletics

(a) General exercises in circle or open order

Races: 50 mts., 100 mts, 200 mts. 2x50 mts. relay(shuttle), techniques of start and finish

Jumps: long jump, high jump

Approach run, take off and flight

Throws: cricket ball throw and soft ball throw

(b) General warming up and developmental exercises
Run: 100 mts, 200 mts, 4x100 mts. relay, 400 mts.
Different techniques of start, sprint and finish
Jumps: long jump and high jump
Laending, mid air action and action above the bar
Throws: putting the shot (8 lbs), practice of initial stance, javeline throw (junior) and practice of initial stance

(c) Principles of sprints: 100 mts., run 200 mts. run, 400 mts. run, 4x100 relay. Techniques of performance fixing of starting blocks and principles of jumps, warming up.
Principles of Throws: putting the shot glide, delivery and follow through.
Javeline (Junior) initial stance, approach run and release

6. Games

(a) Minor: touch and run, cat and rat, leader game and snatch the handkerchief. Cock and fight, find a partner, run and hop and chain tag.
Dogs and cats, blind hop tap, dodge and march, king of the ring and bombardment.

(b) Major
Hockey, volleyball, kabaddi, kho-kho, basketball, handball, football, cricket, table tennis, softball, tennikoit, throwball.(Participation in any two games) It should include brief introduction of each game and fundamental skills associated with it. The main purpose is that students are aware of game rules and appreciate the play. But those interested in further development should be encouraged to spend additional time outside the time table. The schools should organise practice sessions for the budding players after school hours, if need be.

(c) Lead up Games: pin football, pin basketball, pin hockey, circle kho-kho, keep the ball up, serving in the correct zone and zonal kabaddi.

Five man football, releasing the prisoner kabbaddi, zig zag kho, tip and run, one bounce volleyball, zone basketball, small area hockey, tennisball cricket.

Cricket, football, five man hockey, kick or touch, throwball, line badminton.

7. Wrestling
   - (a) Simple hold for 'Go behind'
     - i) Wrist or palm and arm drag
     - ii) Neck dragging and elbow push
     - iii) Elbow lift, and head under arms
   - (b) Counter holds for above
     - i) Blocking with fore arms
     - ii) Simple leg pick up
   - (c) Exercises for development of: strength, stamina and agility
8. Yogic Exercises
   - (a) Surya namaskar, padmasana, dhanurasana, vajarsana and practice of the previous work
   - (b) Halasan, ardha salbhasan, suptabajrasan, shavasan and practice of previous work
   - (c) Kukat asans, sarvang asan, matsya asan, yog mudra, ardha padmasan, pawan-muktasan

CONTENT : HEALTH EDUCATION

- Practice of previous classwork
- Various organ systems and their important functions
- Nutritious food - their selection and preparation
- Growth and development pattern with reference to boys and girls of 12 to 14 years age-group.

- Learning health related functions of Panchayat and local bodies
- Healthy habits of eating and choosing the food to build a strong body
- Refrain from wasting food while eating
- Disease control - malaria, cholera and common colds
- Clearning and handling of cooking utensils
- Medical check-up to assess growth and health status
- Health rules about sleep, rest and recreation
- Proper food habits
- Harms of smoking, cold drinks, tea and coffee
- Prevention of diseases
- Safety rules - road - playground and at home
- First aid - bandaging, prevention of bleeding, simple artificial respiration, observing the safety measures in cycling, walking, swimming and playing.

....

...

SPORTS AND PHYSICAL EDUCATION

Sports and physical education are an integral part of the learning process, and will be included in the evaluation of performance. A nation-wide infrastructure for physical education, sports and games will be built into the educational edifice.

The infrastructure will consist of playfields, equipment, coaches and teachers of physical education as part of the school Improvement Programme. Available open spaces in urban areas will be reserved for playgrounds, if necessary by legislation. Efforts will be made to establish sports institutions and hostels where specialised attention will be given to sports activities and sports-related studies, along with normal education. Appropriate encouragement will be given to those talented in sports and games. Due stress will be laid on indigenous traditional games. As a system which promotes an integrated development of body and mind, Yoga will receive special attention. Efforts will be made to introduce yoga in all schools; to this end, it will be introduced in teacher training courses.

NATIONAL POLICY ON EDUCATION 1986

PROGRAMME OF ACTION

YOUTH & SPORTS

1. THE PRESENT SITUATION

No information about the present position of health, yoga and physical education the school education curricula of different States and Union Territories is available. However, at present, adequate participation and satisfactory performance in sports and physical education is not considered a necessary condition for promotion to the next higher class as in the case of other subjects.

2. The 'National Curriculum for Primary and Secondary Education - A Frame work prepared by N.C.E.R.T. in December, 1985, suggests the following allocation of time in school education for physical and health education:-

(a)	Lower Primary Stage (Class I-V)	10%
(b)	Upper Primary stage (Class VI-VIII)	10%
(c)	Secondary stage (Classes IX and X)	8%

At the senior secondary stage, the scheme of studies prescribed by the CBSE is quite flexible so that the students can select their subjects leaving out the elective subject of physical education altogether.

II. IDENTIFICATION OF KEY AREAS IN THE NATIONAL POLICY ON EDUCATION

7. Two key areas stand out, namely, (i) integration of sports and physical education in the learning process and evaluation of performance and (ii) involvement of youth in national and social development and sports and games, etc., particularly, through educational institutions at the level of higher learning.

III. THE PROGRAMME

8. The following broad programme of action needs to be implemented:-

CURRICULUM

i) At the lower primary stage, considering the age of children, there is need for considerable physical activity even while they are in school. This need not necessarily involve use of sports equipment. At this level, physical education and games should be only in the form of participation/activities and not in the form of textual reading/learning materials. A minimum of ten periods a week should be devoted for physical education and sports.

ii) At the upper primary stage, while participation in activities relating to physical education and sports should be the main theme, some elements of textual materials could be introduced also. A minimum of one period a day should be devoted for physical education and sports at this stage.

vi) The National Council of Educational Research and Training and the University Grants Commission, in concert with appropriate bodies of the State Governments and LNCPE and NSNIS, should finalize a model curriculum and syllabus in physical education including yoga and sports, that could be made applicable to the different stages of school and higher education. NCERT should also prepare the model text books on the subjects relating to physical education, sports and yoga.

vii) Sports and physical education should be included in the evaluation of performance at different stages of education;

EVALUATION

a) At the level of school education, assessment of participation and performance in sports and physical education activities may continue to be done in the form of grading. However, the grade awarded to a child in sports and physical education should have the same weightage in the annual examination as is attached to marks and grades in other subjects. Grades in physical education and sports corresponding to failure should be clearly identified.

INFRASTRUCTURE

viii) In order to make it possible that the above mentioned activities at the stage of school and higher education are included in the curricula and made part of evaluation, creation and supplementing of the available infrastructure in schools and institutes of higher learning would be necessary. The following measures will therefore, have to be taken:

a) A quick survey should be undertaken by the Central/State agencies of the availability of trained teachers in the sphere of physical education and sports at the stage of school and higher education and also of the physical infrastructure available for these activities in institutions of higher learning.

b) Basing on the results of the survey, the States and Central agencies should draw up plans so that the necessary infrastructure is provided in all educational institutions, if possible, by the end of the Eighth Five Year Plan.

d) The local village institutions should be prevailed upon to make available at least one acre of land for a lower primary school and 2.5 acres of land for an upper primary school for use as playgrounds.

The local community should be encouraged to undertake the development of the land for sports and benefit of schemes of rural development also made available for this purpose.

ix) Where playfield facilities and other infrastructure are not readily available in an institution, sports and physical education syllabi should be so designed that they lend themselves for evaluation of performance on a basis comparable to that obtaining in institutions with requisite facilities.

x) The requirements of equipment for games and sports, keeping in view the rise in prices, are large. On a rough estimate the following minimum amounts per annum should be provided for institutions at various levels:

Lower Primary Schools	Rs.1,000
Upper Primary Schools	Rs.5,000
Secondary/Senior Secondary Schools	15,000
Colleges	25,000
University Campuses	Rs.1,00,000

Twice the amounts mentioned above should be provided to the institutions as non-recurring expenditure.

xi) Integration of physical education and sports with the learning process would require provision and orientation of physical education teachers in various educational institutions. While generally institutions of secondary/ senior secondary level have physical education teachers on their staff strength, and a few of the upper primary schools also have physical education teachers, there are no separate physical education teachers in the lower primary schools. To fill in this void:

TEACHERS

(a) Training in physical education should be made part of the curriculum of teacher curriculum of teachers training institutions at the elementary level (primary and upper primary) as also in the teacher training colleges.

b) At least, one teacher in each primary and upper primary school should be exposed to an orientation course in physical education in a phased manner during the vacations commencing from summer break in 1987. The physical education teachers of the nearby secondary schools can be the resource personnel to begin with. The number of the teachers to be oriented will be about 6,00,000. They could be covered at the rate of about 2,00,000 per year. Thus by the end of the Seventh Five Year Plan each lower and upper primary school would have at least one teacher orientated to physical education.

xvii) Efforts should be made to gradually provide instruction in Yoga at all stages of education up to the higher secondary stage.

xviii) Yoga should be introduced in the Teacher Training Courses at different levels. Further, for providing in-service training to the existing teachers, well-known institutions in the country should be identified and the teachers provided with training of adequate duration. Having regard to the nature of yoga, the process will have to be slow and no time limit can be laid down.

xxi) In keeping with the principle that physical education should be given the same status in educational institutions as other subjects, the physical education teachers at different levels should have the same status as that enjoyed by the teachers in other disciplines. In higher education, physical education should be one of the elective subjects at the undergraduate level, at least in some institutions.

TARGETS AND PHASING

ii) The integration and evaluation at the lower and upper primary stages can begin when the orientation of at least one teacher in physical education from each school has been completed. The process is likely to take about three years as mentioned earlier, and it may, therefore, be possible to make integration and evaluation at this stage mandatory only from the first year of the Eighth Five Year Plan. Meanwhile, wherever facilities exist and physical education teachers are available, primary schools can be encouraged to lay stress on physical education and sports.

***

...

SPORTS AND PHYSICAL EDUCATION

Sports and physical education are an integral part of the learning process, and will be included in the evaluation of performance. A nation-wide infrastructure for physical education, sports and games will be built into the educational edifice.

The infrastructure will consist of playfields, equipment, coaches and teachers of physical education as part of the school Improvement Programme. Available open spaces in urban areas will be reserved for playgrounds, if necessary by legislation. Efforts will be made to establish sports institutions and hostels where specialised attention will be given to sports activities and sports-related studies, along with normal education. Appropriate encouragement will be given to those talented in sports and games. Due stress will be laid on indigenous traditional games. As a system which promotes an integrated development of body and mind, Yoga will receive special attention. Efforts will be made to introduce yoga in all schools; to this end, it will be introduced in teacher training courses.

NATIONAL POLICY ON EDUCATION 1986

PROGRAMME OF ACTION

YOUTH & SPORTS

1. THE PRESENT SITUATION

No information about the present position of health, yoga and physical education the school education curricula of different States and Union Territories is available. However, at present, adequate participation and satisfactory performance in sports and physical education is not considered a necessary condition for promotion to the next higher class as in the case of other subjects.

2. The 'National Curriculum for Primary and Secondary Education - A Frame work prepared by N.C.E.R.T. in December, 1985, suggests the following allocation of time in school education for physical and health education:-

(a)	Lower Primary Stage(Class I-V)	10%
(b)	Upper Primary stage(Class VI-VIII)	10%
(c)	Secondary stage (Classes IX and X)	8%

At the senior secondary stage, the scheme of studies prescribed by the CBSE is quite flexible so that the students can select their subjects leaving out the elective subject of physical education altogether.

II. IDENTIFICATION OF KEY AREAS IN THE NATIONAL POLICY ON EDUCATION

7. Two key areas stand out, namely, (i) integration of sports and physical education in the learning process and evaluation of performance and (ii) involvement of youth in national and social development and sports and games, etc., particularly, through educational institutions at the level of higher learning.

III. THE PROGRAMME

8. The following broad programme of action needs to be implemented:-

CURRICULUM

i) At the lower primary stage, considering the age of children, there is need for considerable physical activity even while they are in school. This need not necessarily involve use of sports equipment. At this level, physical education and games should be only in the form of participation/activities and not in the form of textual reading/learning materials. A minimum of ten periods a week should be devoted for physical education and sports.

ii) At the upper primary stage, while participation in activities relating to physical education and sports should be the main theme, some elements of textual materials could be introduced also. A minimum of one period a day should be devoted for physical education and sports at this stage.

vi) The National Council of Educational Research and Training and the University Grants Commission, in concert with appropriate bodies of the State Governments and LNCPE and NSNIS, should finalize a model curriculum and syllabus in physical education including yoga and sports, that could be made applicable to the different stages of school and higher education. NCERT should also prepare the model text books on the subjects relating to physical education, sports and yoga.

vii) Sports and physical education should be included in the evaluation of performance at different stages of education;

EVALUATION

a) At the level of school education, assessment of participation and performance in sports and physical education activities may continue to be done in the form of grading. However, the grade awarded to a child in sports and physical education should have the same weightage in the annual examination as is attached to marks and grades in other subjects. Grades in physical education and sports corresponding to failure should be clearly identified.

INFRASTRUCTURE

viii) In order to make it possible that the above mentioned activities at the stage of school and higher education are included in the curricula and made part of evaluation, creation and supplementing of the available infrastructure in schools and institutes of higher learning would be necessary. The following measures will therefore, have to be taken:

a) A quick survey should be undertaken by the Central/State agencies of the availability of trained teachers in the sphere of physical education and sports at the stage of school and higher education and also of the physical infrastructure available for these activities in institutions of higher learning.

b) Basing on the results of the survey, the States and Central agencies should draw up plans so that the necessary infrastructure is provided in all educational institutions, if possible, by the end of the Eighth Five Year Plan.

d) The local village institutions should be prevailed upon to make available at least one acre of land for a lower primary school and 2.5 acres of land for an upper primary school for use as playgrounds. The local community should be encouraged to undertake the development of the land for sports and benefit of schemes of rural development also made available for this purpose.

ix) Where playfield facilities and other infrastructure are not readily available in an institution, sports and physical education syllabi should be so designed that they lend themselves for evaluation of performance on a basis comparable to that obtaining in institutions with requisite facilities.

x) The requirements of equipment for games and sports, keeping in view the rise in prices, are large. On a rough estimate the following minimum amounts per annum should be provided for institutions at various levels:

Lower Primary Schools	Rs.1,000
Upper Primary Schools	Rs.5,000
Secondary/Senior Secondary Schools	15,000
Colleges	25,000
University Campuses	Rs.1,00,000

Twice the amounts mentioned above should be provided to the institutions as non-recurring expenditure.

xi) Integration of physical education and sports with the learning process would require provision and orientation of physical education teachers in various educational institutions. While generally institutions of secondary/ senior secondary level have physical education teachers on their staff strength, and a few of the upper primary schools also have physical education teachers, there are no separate physical education teachers in the lower primary schools. To fill in this void:

TEACHERS

(a) Training in physical education should be made part of the curriculum of teacher curriculum of teachers training institutions at the elementary level (primary and upper primary) as also in the teacher training colleges.

b) At least, one teacher in each primary and upper primary school should be exposed to an orientation course in physical education in a phased manner during the vacations commencing from summer break in 1987. The physical education teachers of the nearby secondary schools can be the resource personnel to begin with. The number of the teachers to be oriented will be about 6,00,000. They could be covered at the rate of about 2,00,000 per year. Thus by the end of the Seventh Five Year Plan each lower and upper primary school would have at least one teacher orientated to physical education.

xvii) Efforts should be made to gradually provide instruction in Yoga at all stages of education up to the higher secondary stage.

xviii) Yoga should be introduced in the Teacher Training Courses at different levels. Further, for providing in-service training to the existing teachers, well-known institutions in the country should be identified and the teachers provided with training of adequate duration. Having regard to the nature of yoga, the process will have to be slow and no time limit can be laid down.

xxi) In keeping with the principle that physical education should be given the same status in educational institutions as other subjects, the physical education teachers at different levels should have the same status as that enjoyed by the teachers in other disciplines. In higher education, physical education should be one of the elective subjects at the undergraduate level, at least in some institutions.

TARGETS AND PHASING

ii) The integration and evaluation at the lower and upper primary stages can begin when the orientation of at least one teacher in physical education from each school has been completed. The process is likely to take about three years as mentioned earlier, and it may, therefore, be possible to make integration and evaluation at this stage mandatory only from the first year of the Eighth Five Year Plan. Meanwhile, wherever facilities exist and physical education teachers are available, primary schools can be encouraged to lay stress on physical education and sports.

***

Module No.HPE 1

MODERN CONCEPT OF PHYSICAL EDUCATION

S.R. Ghosh
Reader in Phys.Ed.
Kalyani University(W.B)
&
S.Bhattacharya
R.C.E.,Bhubaneswar.

Schools generally had some games and exercises as a part of this co-curricular activities. With rising awareness amongst educationist about the importance of Physical Education it became a compulsory but non-evaluative subject. Further stress was placed on it, when the National Policy on Education (1988) made Health and Physical Education a compulsory and evaluative subject in general education (class I-X), with 10% of time allocated to it.

MODERN DEFINITION AND GOALS OF PHYSICAL EDUCATION

Just as the stress on Physical Education has changed so has its definition goals and objectives, What is Physical Education ? Modern concept of Physical Education states that it is that phase of General Education that contributes, mainly through movement experiences, to the total growth and development of each child. It is education of and through movement, and its goals are well defined.

- promotion of physical development and personal physical fitness
- development of competency in a wide variety of physical skills, which help the learner to participate effectively in physical activities.
- development of understanding of movement and partinent prenciples governing motor skill, performance.

and in addition, goals shared and complemented by other curricular areas such as development of safety skills, personal values, moral development, cooperative and competitive attitudes and a positive self-image.

OBJECTIVES OF PHYSICAL EDUCATION AT ELEMENTARY LEVEL

Based on these goals certain broad objectives can be defined for the elementary stage of school education which falls under the purview of the MCD.

1) Provision of opportunity to develop and maintain a level of physical fitness commensurate with individual needs.
2) Development of understanding how to maintain fitness for life.
3) Development of competency in body management and in useful physical skills.
4) Providing broad experience and understanding of movement and the underlying principles involved.
5) Acquirement of safety skills and habits and development of awareness of safety of others.
6) Development of physical skills which lead to participation and enjoyment of wholesome recreational activities.
7) Acquirement of personal values that lead to a full and productive life.
8) Acquirement of a desirable self-concept.

SOME DIMENSIONS OF PHYSICAL EDUCATION

It would be worthwhile to clarify the meaning of Physical Education. Since Physical education is an integral part of education, it is obvious that Physical Education and education should both work harmoniously in the total process of education. Physical Education must proceed towards the goal of education through a well directed programme of properly selected physical activities. Through such a programme, pupils should develop skills necessary in all walks of life and engage in activities conductive to healthful, living, social adjustment and total physical and mental fitness. Physical Education is not only hygiene, physical culture, gymnastics, athletics or physical training. These are some of the areas wrongly taken as Physical Education. On the other hand they are some component parts of Physical Education. Muscular activities play a major role in the development of organic systems of the body such as digestive, circulatory, excretory, cardio-vascular, respiratory and the other systems of human body. Through vigorous muscular activities the muscular system can be properly developed and enable the child to perform his daily activities in a better way and also help him to lead a healthful living, Physical skills can be developed only if effective body coordination is achieved through the various movements of the body, over a long period. Movement in a proper way is necessary for a child's growth in his formative age. The skills that a child acquires in his childhood will not only help him to be physically fit but will also enable him to engage himself in recreative activities in his later life.

Activity 1: Identify some recreational activities suitable for your school which can be linked to physical education.

Further through physical education the child learns leadership, develops self reliance, team spirit and sportsmanship. In brief, it can be said that a physically educated child will be in a better position to lead a healthy and balanced life and will be capable of doing better service to the society. Education is mainly concerned with the youth at his formative period of life when he can learn the values of physical fitness, social adjustment, democratic living. Physical Education is a very effective tool in developing all these aspects in a child. Hence, it is an integral part of education.

Physical Education helps the child in emotional adjustment and in developing social attitudes. Physical Education also plays a vital role in inculcating the cultural values in the child.

Activity 2: Identify Physical Education activities which can inculcate

a) team work

b) ways of overcoming emotional stress.

In the attainment of the goals of education through Physical Education has some unique outcomes. The first of these unique goals is the acquisition of physical development and personal physical fitness, secondly, the goal of developing a wide variety of physical skills. The third unique outcome is establishing an understanding of movement and the pertinent principles governing motor skill performance. Should these goals not be acquired through Physical Education classes, they will not be realized elsewhere in the curriculum.

In the conclusion it can be said that Physical Education contributes to the development of total personality, helps people to utilise their leisure time in wholesome manner through recreative activities and also plays a great role to bring the handicapped people in the 'mainstream'.

**

Module No.HPE - 2

MINIMUM LEVELS OF LEARNING FOR PHYSICAL EDUCATION

S.R. Ghosh
Reader in Physical Education
Kalyani University.

Introduction:

Physical education is one of the most interesting area to children of Primary level. The play or physical activity is instinctive. The children have a natural liking for such activities. The teacher has to take the full advantage of this fondness in teaching these children. Therefore 'play-way' method of teaching has been popularly accepted specially in Primary education. Also, a special care should be taken by the teacher to keep the interest alive. Physical education includes a vast area of activities covering cognitive, affective and psychmotor domain.

Keeping all these areas in view a scheme of M.L.L. should be set up to ascertain the minimum levels of attainment for different classes. The following competencies should be the major aspects on which the M.L.L.s are to be suggested for different classes.

I. Health and physical fitness :

a) Proportional growth and development
b) Right posture
c) Strength
d) Speed
e) Endurance
f) Egility
g) Balance
h) Co.ordination

II. Fundamental movements :

a) Walking
b) Running
c) Bending
d) Jumping
e) Rotating
f) Pinoting
g) Throwing

Contd...2..

III. Skills in games and sports :

a) Minor games
b) Major games (modified)
c) Track & Field
d) Gymnastics
e) Swimming
f) Yoga.

IV. Social qualities :

a) Discipline
b) Team spirit and co.operation
c) Sense of belongingness
d) Leadership

V. Self, defence, self confidence and boldness : through activities -

a) Boxing, Wresting, Karate, Gymnastics, track & field etc.

VI. Moral qualities :

a) Obeying rules
b) Respecting officials
c) Being courteous to opponents
d) Playing in fair way
e) Accepting defeat.

VII. Leisure and recreation :

a) Selecting sports as a leisure time hobby.
b) Enjoying participation in sports.
c) Appreciating and enjoying sports as spectators.

~~Saf~~ Safety in Sports :

Avoiding accidents and injuries -

a) Playing in proper place
b) Playing with proper dress
c) Following safety rules of gymnasium and swimming pool.
d) Proper use of suitable equipment
e) Selecting suitable exercises and participating in proper way.

Contd...3..

Emphasis is put on MLL for the attainment of 100% children in the class. But the teacher should not feel satisfied by reaching this target. Opportunity may be provided to gifted children to reach excellemce. Allotment of MLL in a class enables the child to cope up with the requirements of next higher class.

There should be a continuous process of both learning and evaluation as one stage does not end in itself. A definite evaluation procedure for physical education is yet to be set up for our purpose. A symetic Evaluation procedure is to be worked out to ascertain achievement of children as expected in different classes. Data based norms may be introduced for assessment of children in different activities. Day to day observation of the teacher should also form a part of the evaluation so that some of the qualities like health habits, discipline, team spirit, fair play etc. get due recognition in the evaluation procedure. Different areas of competencies as suggested above may be kept in view in the process of evaluation.

- - -- - --

ORGANISATION OF RECREATIONAL ACTIVITIES

S.C. Rao
D.M.School,
Bhubaneswar.

OVERVIEW:-

To awaken and to keep aline an interest in play and recreation is a real contribution to the education of the individual. All children express an interest in playing recreational activities.

Recreation is a worthwhile, socially accepted, leisure experience, that provide immediate and inherent satisfaction to the individual who voluntarily participates in an activity.

The student will involve in several types of learning in recreational activities. One becomes involved in learning prompt motor responses (skills), in catching, throwing, batting distinguishing between a curve ball and straightball, and making judgements of distance, time, speed and space (interpretation of sensory experience - percepts), remembering the signals, rules and plays (prompt mental response - memory), deciding when and how to try for a new strategy (understanding, problem solving - use of inference), learning to put one's personal whims for the good of the group and to accept the official decisions without flaring up (modification and control of emotional responses), appreciating one's friends, enjoying the game as a game, developing loyalty to the team and school (development of attitudes and ideals - the personal qualities of a good citizen).

Values of Recreation:

Recreational activities influence on the elements of personality like habits, interests, desires, attitudes, beliefs and ideals.

Recreation also influences on the factors like:

a. happiness
b. satisfaction
c. balanced growth
d. creativeness
e. competition
f. character
g. Mental capacity and learning
h. Physical health
i. social health
j. emotional stability

OBJECTIVES OF RECREATIONAL ACTIVITIES:

- To provide equal opportunity for all
- To provide for both the senses
- To provide opportunities for Co-recreation
- To provide wider range of activities
- To provide passive and active form of recreation
- To provide opportunity for different levels of skills
- To provide carryover leisure time skill and interest
- To provide for different periods of free time
- To be related to other local programmes
- To encourage individuals and groups to provide their own activities.
- To encourage democratic and cooperative planning
- To furnish outlets for satisfying group activity.
- To recognise different tastes and interests of the individuals.
- To provide outlets for creative expression
- To provide for the ill and handicapped.
- To utilise all facilities
- To the wisest use of available resources
- To provide within the financial abilities

- To assure safe and healthful conditions
- To be subject to continuous evaluation
- To utilise voluntary services of individuals and groups

OBJECTIVES

A study of this module will help you to

- become aware of the concept of recreation and values of recreational programmes.
- become aware of the objectives of recreational programmes.
- become aware of common factors influencing the organisation of recreational activities
- become aware of teaching aids
- become aware of the evaluation procedures
- develop skills to participate in various recreational activities
- create an environment in the school to promote recreational activities and thus promote sportsmanship among students.

GUIDELINES OR GENERAL TEACHING SUGGESTIONS:

1. Try to motivate the student. Create within him a receptive mood of anticipating success and satisfaction, a challenge and a desire to achieve.
2. Explain the objective of the game. Explain how the objective is achieved through offensive and defensive play.
3. Explain enough of the simple rules
4. Place players in position and try the game as a whole for a while.
5. Teach skills separately.
6. Stop the game when necessary to explain a rule or demonstrate a technique. Use good players to demonstrate.

7. Help the learner by teaching the fundamental skill most lacking.
8. Suggestions during practice of the activity will help the student to eliminate errors.
9. Match the drills to the actual game or activity.
10. Audio-visual aids help the learner get an accurate concept of what he is trying to do.

In planning the activities, many factors must be considered by the teacher. The teacher is faced with such factors as the following:

a. Time
b. Spaces
c. Equipment
d. Bases of groupings in class
e. Number of groups
f. Student leaders
g. Sequence in daily lesson plans
h. The specific days lesson

The teacher may use any of the following teaching aids while organising recreational activities:

a. Demonstration by skilled individuals
b. Motion pictures and film strips
c. Charts and pictures
d. Use of the black board
e. Well illustrated books and magazines
f. Visits to games between skilled teams
g. Illustrated talks by skilled people

The teacher should be aware of the various other agencies providing recreation for any kind of help. They are:

a. Home and individual.

b. Government: Central, state, municipality, museum etc.

c. Semi public or voluntary - youth services, Y.M.C.A., Y.W.C.A., clubs etc.

d. Private industries, clubs, sports organisations etc.

e. Commercial agencies like amusement parks, circus, magic, theatre, T.V., Radio, all professional sports, travels etc.

Programming of recreational activities can be done under three general types:

1. Daily Programme
2. Weekly Programme
3. Seasonal Programme

1. Daily Programme: Morning - informal activities
Mid morning - strenuous activities
Before lunch and after lunch – Quite activities like crafts, music, dance etc.
Evening - Special events and tournaments.

2. Weekly Programme: Three or four times a week.
Crafts, dramas, music, natural and other activities, competitions etc.

3. Seasonal Programme: Local traditions, interests, resources should be considered.

Summer Season: Water activities, track & field, hiking, camp fire, circus, festivals, trips for sports, dances, crafts, plays, exhibits etc.

Winter Season: Vigorous activities of all kinds, avoid water activities.

Rainy Season:-Indoor activities.

EVALUATION:

Types of evaluation for recreational activities are:

1. Periodic evaluation
2. General evaluation
3. Specific evaluation

Nature of test: a. Qualitative evaluation depends upon appreciation, values, fitness, outcomes etc. Can be measured by personal interviews. This requires frequent supervision.

b. Qualitative evaluation depends on records and performance.

Tools of evaluation: For qualitative evaluation interviews, questionnaire, checklists, reports, surveys etc.

For quantitative evaluation records basing on achievements.

Evaluation can be done by leader, a group of staff, outside experts or joint committee of experts and participants.

ACTIVITY

1. The teacher educator will organise relay races for the pupil teacher like running by imitation, the actions of different animals, automobiles etc.
2. The teacher educator will divide pupil teachers into different groups and organise competitions in tag games and rhythmic activities etc.
3. The student teacher will actively take part in relay races and other competitions.
4. The student teacher will prepare charts/albums and collect a number of songs in different languages.

SUGGESTED RECREATIONAL ACTIVITIES:

a. Immitations: of frogs, rabbit, elephant, lion, bus, aeroplane, train etc.

b. Free play: Simple games on apparatus and without apparatus: like; See-saw, ladder and slide, swings, jungle gym, bridge ladder, rainbow ladder, merry go round etc.

c. Callisthenics:Free arm exercises - Tables of four Counts and eight counts exercises numbering to 6 to 8 exercises in each table. At least 4 to 5 tables.

d. Set drills: Dumbbells, Indian clubs, Wands, flag drill, Poledrill etc.

e. Formal activities:Dands, Baithakas, Suryanamaskaras.

f. Combatiues: Hand pull, Hand push, Back to back lift, stepping on toes, Duck fight, cock fight etc.

g. Rhythmics: Lezim, Folk dance, simple dancing steps. etc.

h. Marching: Attention, Stand at ease, Right turn, Left turn, Right about turn, Marching, Right dress, eyes right, eyes front etc. Marching in three files etc.

i. Yogasanas: A minimum of four asanas in each class. Padmasana, Salabasana, Sarvangasan, Sirsasan, Patchimottanasana, Chakrasana, Dhanurasana etc.

j. Lead up Games:Circle Kho, Double Circle Kho. Whip Kabaddi, Touch Kabaddi, Throw ball, Bucket Cricket, Line football etc.

k. Relay Races: Tunnel relay, Ball up and down relay, Horse and rider relay, Driving the pig to the market etc.

l. Minor games: Dodgeball, Dogand the bone, Bull in the ring, Namaskar tag, Chain tag etc.

m. Indigeneous games:Kho-kho, Kabaddi, Fundamental rules and regulations, techniques etc.

n. Gymnastics: Simple floor exercises like forward role, Backward role, Headstand, hand stand, Cartwheel, attention drop, H-Balance, T-Balance etc.

o. Track and Field: Short Sprints of 50M, 75M, 100M.
Standing broad jump
Standing high jump
Standing shotput
Zig-Zag relay races etc.

p. Major Games: Cricket, Football, Volleyball, Basket ball, Throw ball, Table Tennis etc. Some fundamental skills and rules and regulations may be taught.

q. Lead up games: Circle kho, Double circle kho. Touch kabaddi, Hand baseball, Throwball, Zone volleyball, Line football, Softball Cricket, bucket Cricket etc.

....

Module No:HPE 4

YOGA

B.B.Patnaik
Asst.Director
(Physical Education)
Orissa

Yoga has been derived from Sanskrit word JUJ . It means union or yoke. We are familiar with two terminology 'Atma' and 'Paramathma'. Atma is related to human being and 'Paramathma' is some how meant at the higher level. There are divergent groups to pull 'Jeevathma' down. If at all you want to unite 'Atma' and 'Paramathma' you have to under go so many hurdles. Unity or union of 'Atma' with 'Paramathma' is the meaning of Yoga. In christian philosophy also there is God and in-between there is Devil. The desires and aspirations are devils. If you can release yourself from the catches of devil then 'Atma' will meet 'Paramatma'. According to hindu philosophy Yoga is there from 3000 B.C. It is there also in 'Gita' which is from 400 B.C. The ultimate aim of all preaching is to unite 'Atma' with 'Paramathma' to attain Mokhaya. We believe re-birth. It all depends upon our work. So, it is said "do your duty what is best and rely. on the almighty for the rest. Transfer [illegible] the human being to elevate the 'Atma' to the level of 'Paramathma'. According to Patanjali the founder of Yoga sutra there are eight stages on limbs of Yoga. They are Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhanya and Samadhi.

Yama:- There are some ethical principles. The behaviour of an individual or the character must be changed for exterman purify. The principles are:-

1) Ahimsa (Non violence) Ahimsa Parama Dharma - win the heart of the people.

2) Satyhya (Truth) Always try to tell the truth (Satya)
3) Astheya -- Non stealing
4) Aparigriha - collecting and hoarding.
5) Brahmacharya- (Celebacy). It amounts to the behaviour of one individual. Thinking in terms of good things. Bad thinking itself will have a bad effects on celebacy.

Niyama:- Some principles to be followed for external purity. Niyama is sub-divided.

1) Shoucha -(Regularly obeying the call of the nature, cleaning the body regularly. Purity of body leads to purify of mind.
2) Santosha - (Contentment, happiness,Trupti.
3) Tapah - Japah means penance (Burning the desires).
4) Swadhayh:- Self study, Introspection, self assessment.
5) Iswara Pranidhana:- God - (consciousness (live on thy to best leave on thy to rest). What ever you do, do for the sake of 'God'.

Asana:- Asana or posture gives strength. Yoga Asanas have acquired an importance which has a twofold character. They are not only a set of physical exercises but a preparatory stage for the practice of Yoga. Asanas are for the purification of the body and setting of it in tune with the nervous equilibrium. That is necessary for engaging one self in the higher concentration. Asanas are learnt from the nature.

Body is a temple which houses the devine spark. According to Yogi this body has been given not for enjoyment alone but for the services of his fellow men during one's life time. By performing asanas the Sadhaka gains health which can not be purchased with money. According to him Health is a state of complete equlibrium of body, mind and spirit. By performing asanas the Yogi will be free from physical disabilities and mental distractions. It helps internal purification of body and mind and cures so many diseases.

Pranayama:- Prana-Yama, Prana means - Breath, Respiration, Life, Energy, Vitality.

Yama means - Expansion, stretching, restrain. The word gives the meaning of extension of breath and its control. Here we come under 3 stages. Inhalation, control, and exalation. Inhaling is known as Puraka, Exalation is Rechaka and Retainsion or control is Kumbhaka. Pranayama is thus the science of breath. It is the hub round which the wheel of life revolves. As lions and tigers are tamed very slowly, so should prana be brought under control very slowly in gradation according to one's capacity and physical limitations.

Pratyahara:- Control of senses (5 senses). It is only possible through rhythmic breathing. Here he tries tosee only internal sole, own Atma. When this stage is reached the Sadhaka will be able to search inward. In this stage Parakaya prabesha stated by Sri Aurovindo or Sankaracharya come in to effect.

Dharana:- When the body has been tempered by Asanas, when the mind has been refined by the final Pranayama and the senses have been brought under control by Pratyahara the sadhaka tries to concentrate on a single point or a state in which he is completely involved . The mind is an instrument which classifies, judges and co-ordinates the impressions from the outside world and those arise within oneself but a thought which is well guarded by a controlled mind brings happiness.

Dhanya :- As water takes the shape of its container, the mind when it contemplates an object it transformed with the shape of that object. When oil is pored from a vessel to another, you can observe the steady and constant flow of the oil. It means concentration is un-interrupted. This state of mind is known as Dhanya means complete meditation.

Samadhi:- Samadhi is the end of Sadhaka's quest. At the being of his meditation he possess in to the state of Samadhi where his body and senses at rest as if they are asleep. It is he realms of infinite bliss, supreme peace Worries, anxieties, and fear which torment the soul dare not enter. All distinctions if caste, creed and colour vanish alltogether in the one embrace of Divine Love.

The science that teaches the way of acquiring the knowledge of union of individual soul and supreme soul is called Yoga Shastra. Hata Yoga concerns the physical body and control of breath. Raja Yoga deals with the mind. Raja Yoga and Hata Yoga are necessary counterparts of each other. No one can become a perfect Yogi without the knowledge of the practice of both. Raja Yoga begins where properly practised Hata Yoga ends.

Just as one and the same coat will not suit you and all your brothers, so also one path will not suit all people. There are four paths to suit people of four kinds of temperament. They all lead to the same goal, the attainment of Reality. Roads are different but the destination is the same. The four paths that are ihculcated for the achievement of this ultimate truth from the different stand points of the man of action, man of devotion, the mystic man and the philosopher or the man of iveason. are separately termed Karma yoga, Bhakti Yoga, Raja Yoga and Jnana Yoga.

The four paths are not antagonistic to one another, but, on the otherhand, they are complementary. They only indicate that the different methods are in harmony with each other. One sided development is not commendable Karma Yoga purifies the mind and developes the hand. Bhakti Yoga develops the heart. Raja Yoga steadies the mind and makes it one pointed. Jnana Yoga removes the veil of ignorance, develops will and reason, and brings in knowledge of self. Therefore, one should practise the four Yogas. You can keep Jnana Yoga at the centre and the other Yogas as auxiliaries to get rapid progress in the spiritual path.

'Asana' is the third Anga of Ashtanga Yoga. Ordinary physical exercises develops the superficial muscles of the body only. But Asanas are intended for the thorough exercise of the internal organs, such as liver, spleeh, pancreas, intestines, heart, lungs, brain, and the important ductless glands of the body which are called endocrine glands (thyroid and parathyroid at the root of the neck), adrenals in spleeh, pitatary and pineal glands in brain which plays a very important part in the economy of nature, in maintaining health, growth and nutrition of different kinds of cells and tissues of the body.

"Sthira-Sukham Asanam - Posture is that which is firm and comfortable". If the Asanas are not firm the mind will be disturbed quickly. You will not have concentration of mind. If the seat becomes firm, you will have progress in your meditation. You will have no consciousness of the body.

The postures are as many in numbers as there are numbers of species of living creatures in this universe (84 lakhs of bodies) . There are 84 lacs of Asanas described by Loard Siva. Among them 84 are the best and among these 84, thirty two have been found very useful for mankind.

There are some Asanas which can be practised while standing. They are Tadasana, Trikonasana, Gorudasana etc. There are some which can be practised while sitting. They are paschimottanasana, Padmasana, Janusirshasana, etc. Some are practised while lying down. These are Uttanapadasana, Pavanamuktasana etc. Some Asanas such as Sirshasana, Vrikshasana, Sarvangasana, Viparita Karani Mudra, etc. are done with head downwards and legs upwards. Generally after the age of ten or twelve these Asanas can be practised. People of twenty to thirty years of age performs all Asanas nicely. Practice for a month or two will render all rigid tendons, muscles and bones very elastic. Even old persons can prac tise all Asanas. They can give up Sirshasana if they are not physically fit.

A weak sickly body means a weak mind also. Thogh the body is useless or Jada, yet it is an important instrument for self-realisation. The instrument must be kept clean, strung and healthy. This body is a horse for you to take you to the goal.

*****

Module No. HPE 5

PHYSICAL FITNESS AND CONDITIONING.

Dr. [illegible] Das,
Ph.D.(P.E.)
Principal
Govt. College of Physical
Education, Orissa,
Cuttack – [illegible].

Fitness of a citizen is the real wealth of a nation. Physical fitness amongst all its citizens is essential for the nations' progress in all walks of life. A fit citizen in both mind and body is an asset for the development of the nation.

Physical fitness refers to the organic capacity of an individual to perform the normal tasks of daily living without undue tiredness and fatigue having reserves of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him.

Everybody wishes beauty and health, physical and mental fitness, vitality and happiness. Games, sports and mass gymnastics are designed to promote fitness through rhythmic movements to develop physical fitness of the individuals. In fact, for success in any field of human endeavour, the development and maintenance of physical and mental fitness has become an indispensible requirement. Besides, games and sports, the rhythmic movement through mass formations, calisthenics, rhythmic gymnastics, lezium, acrobatics, pyramids, yoga, free play, malkhamb etc. also broaden the base of physical fitness to achieve the twin objective - "Sports for all and fitness for all". The dundamental activities like running, jumping, bending, pushing, pulling and throwing develop physical fitness which is fundamental necessity for the wellbeing of the society.

Games and sports are based on the ideas and concept of science that has brought about fantastic changes in human performances. Competitions and meets that have taken place in these games and sports, are based on the modern approach of the training for the multifarious aspects of players. A well - balanced physical fitness and conditioning programme which is

Contd...2..

a process through which an individual is prepared & well adopted - physically and psychologically should be carried out through out the year since the physiological factors have implications for further improvements in training techniques and the components of physical fitness are mutually exclusive in most cases. Successful performance within the parameters of any one component is in no way predictive of successful performance in another components. Hence the trainer should be very careful with the demands of each movement activity which will improve fitness.

Training and conditioning are most indispensible for sportsman. According to fred wilt "Training involves a series of physical activities deliberately planned & carried out & a mental attitude deliberately cultivated for increasing efficiency in performance" & according to Barney ETAL" Conditioning involves the exposures of the individual to several kinds of scheduled activities which influence to whole individuals, promoting the qualities of organic vigour, sense of personal achievement and self discipline."

Mostly a well balanced conditioning programme includes the physical, psychological & environmental aspects. Physical conditioning which is imperative to all classes of individuals is based on the development of strength, stamina, speed, agility and neuromuscular co-ordination. The physical fitness programme can be based on the general conditioning and specific conditioning programmes and the trainer should bear in mind the sound and detailed knowledge of the requirements of the concerned activity, the thorough knowledge of the individuals, his pros & Cons, a sound knowledge of physiology and the progression to be adopted one for another systematically. The physical education teacher must be familiar with the components of fitness, demands of each movement activity and the various programmes which will improve fitness.

Contd...3..

Components of Physical Fitness:-

1) STRENGTH :- This refers to as the capability of overcomin certain resist-ance or off acting against it by muscular tens (the term capability is used here in the sense of functional potential). In other words it can be said that strength is the force that a muscle can exert against a resistance in one [illegible] effort. Physical fitness requires at least minimal amount o muscula-r strength which is a very important component of physical fitness. In most case, a strenger individual has a greater mechanical advantage in the use of his muscles & is more able to find success in a variety of physical activities.

i) The general strength is overall strength of the body and is the ability to overcome all types of resistance under different conditions satisfactorily & it forms the basis of specific strength.

ii) The specific strength is always movement or activity specific & it always comes into expression in a form in which it is very intimately connected with technical skill and conditional & co-ordinative abilities.

iii) Relative strength is normally possessed in relation to ones' body weight. The relative strength is a ratio which is got by dividing the maximum strength by body weight.

iv) Maximum strength is the highest possible resistance of an individual can overcome through voluntary contraction of muscles.

v) Explosive strength is an ability of a muscle or a group of muscles to over-come resistance with high speed.

vi) Strength endurance is the ability to overcome or act against resistance under conditions of fatigue.

The activities which help to develop strength are circuit training weight training, up-hill running, sand running, knee-deep water running and selected isometric(static), isotonic (dynamic) exercises and some of them may be clarified as under.

Contd......4..

a) Circuit training is an organisational and methodical process for complex training of conditional qualities, especially strength edurance.

b) Isotonic(dynamic) Contraction of muscle results in changing its length.

c) Isometric(static) is the contraction of muscle against in-surmountable resistance with constant length of muscle.

2) SPEED :- Speed is the ability to execute the motor actions under given conditions in minimum possible time. This also referes to rapidity with which successive movements of the same kind can be performed. Speed ability is highly movement specific. This appears in different forms like reaction ability, movement speed, acceleration ability, locomotor ability and speed endurance in different sports. Speed has two phases - the first phase is reaction time and the second phase is movement time. Taken together, reaction time + movement time result in the measure we call movement speed.

3) ENDURANCE:- Endurance according to physiologists is the most important component of physical fitness. Edurance is the resistance capacity of organism against fatigue during sports exercises of long duration i.e. to maintain a load of relatively high intensity during a longer time. Endurance enables the sports man to maintain an optimum pace during the competition and ensures good quality of the technical skills like accuracy, precision & Rhythm. The Sportsman having endurance can take higher training load & can recover quickly. Endurance enables sportsman to remain alert during competition. The basic endurance, general endurance, and the specific endurance help to perform the activities satisfactory. This endurance can be improved through continuous method, interval method, repetition method, competition and control method.

Contd.....5..

Muscular endurance concerns the ability of a muscle to repeat identical movements or pressures or to maintain a certain degree of tension over a period of time.

This refers to the ability of circulatory and respiratory system to respond to prolonged total physical exertion. Activities that cause the circulatory and respiratory system to respond by increasing their output [illegible].

4. . FLEXIBILITY:- Flexibility is the ability to execute movements with greater amplitude and it is referred to as pertaining a particular joint. Flexibility is the pre-requisite for a good quantitative & qualitative execution of sports movement and the motor abilities like strength, speed, endurance & agility are fully realised, resulting in the prevention of injuries. The flexibility can be passive, active and dynamic and the factors that determined flexibility are anatomical structure of the bone ends forming the joints, the length arrangement and stretchability of the muscles and ligaments of a joint, muscle strength & co-ordination.

5. Co-ordinative abilities:- The co-ordinative abilities are performance pre-requisites & are primarily dependent upon the processes of movement control and regulation. The product of certain co-ordinative abilities is known as agility and agility in each sport is essentially different since each sport is essentially different since each sport requires different types of movements. Agility is the ability to change directions and positions rapidly and effectively in an instant's notice and the motor learning ability depends to a large extent on this level of co-ordinative abilities which are an invaluable asset for learning of complex techniques at different stages of training. The various co-ordinative abilities like the orientation ability, coupling ability, differentiation ability,

Con.....6..

balance ability, rhythm ability, reaction ability and adaptation ability are very important for sports and total physical fitness.

Realising the out comes from physical fitness, wheather he is a child or old, youth or handicapped, one should not neglect to develop the components of physical fitness. That's why kipling once said.

"Nations have passed away
Leaves no traces of it,
History gives the naked truth
They fail, their nation perished
Due to one single reason
- Because their people were not fit".

Module No. HPE No.6

PRIMARY HEALTH CARE SET UP AND ORGANISATION

Sisir Chandra Parida
Health Education Officer
State IEC Centre
Nayapalli,
Bhubaneswar.

BRIEF HISTORY OF DEVELOPMENT OF PRIMARY HEALTH CARE SYSTEM

Keeping in view the constitutional obligations, the Govt. of India planned several approaches for the health care delivery. The basis for organisation of health services in India through the primary health care approach was laid by the recommendations and guidance given by the Health Survey and Development Committee (Bhore Committee) in 1946. As a part of the community development programme which was launched in October, 1952, it was proposed to establish one primary Health Centre (P.H.C.) for each community development block. At that time the operational responsibilities of the P.H.C. were to cover medical care, control of communicable diseases, maternal and child health (M.C.H.) nutrition, health education, school health, environmental sanitation and the collection of vital statistics. Each P.H.C. had three sub-centre which were looked after by trained mid wife to provide M.C.H. services.

Subsequently, the health services organisation and infrastructure have undergone extensive changes and expansion in phased manner.

HEALTH FOR ALL BY 2000 A.D.

India is a signatory to the 'Alma Ata Declaration of 1978' and it is committed to attaining the goals of 'Health For All by 2000 AD', through the primary Health Care approach.

In the international conference on Primary Health care, which was jointly organised by the W.H.O. and UNICEF in Alma Ata was endorsed and it was further stated that Primary Health Care would be the key to attaining this goal.

CONCEPT AND COVERAGE OF PRIMARY HEALTH CARE

It has been defined as an essential health care which should be based on practical, scientifically sound and socially acceptable' methods and technology. It should be made accessible to the individuals, families and community through their full participation. It should be made available at a cost which the community and country can afford to maintain at every stage of its development in a spirit of self reliance and self dtermination.

Primary health care is the first level of contact of the individuals, the family and the community with the national health system bringing health care as close as possible to where the people live and work.

For achieving success in Health for All at least eight essential components of primary health care need to be properly implemented. For their effective implementation, co-operation and support of other departments of Government like education, Agriculture, Panchayat Raj etc. are be vital.

It can be very well recognised that planning, organisation and operation of primary health care is a long process and total population coverage may be achieved progressively in stage.

NET-WORK OF HEALTH SYSTEM INFRASTRUCTURE

The country is divided into states which are again divided into administrative districts. Each district is divided into sub-districts or sub-divisions under which the community development blocks are situated.

Over the past four decades the health services infrastructure and health care facilities have been expanded considerably. It is aimed at further improvement particularly of rural oriented facilities. An indication of the net work of Health system Infrastructure is given in the following table.

National Level - Ministry of Health & Family Welfare.

State Level - Department of Health and Family Welfare.

District Level - District Hd.Qrs.Hospital (with specialist services).

District Level - District Head Qrs.Hospital (with specialist services)

Sub-Divisional Level - Sub-Divisional Hospital (with specialist services)

Block Level - Up graded P.H.Cs (with specialist services)

Community Health Centre (with Specialist services)

Primary Health Centre

Sector Level - Sub-centre

Village Level - Health Guide and T.B.A.

There are also a few Medical College Hospitals in the states and union territories with sophisticated medical equipments and specialist services.

Organisations functioning and facilities available at different levels as described below;

a) Organisation at National Level:

The Union Ministry of Health and Family Welfare has got two technical departments one in the Health Deptt. headed by the Directorate General of Health Services and another is the Family Welfare Department headed by the Commissioner Family Welfare. The executive wing as well a technical departments are under the overall administrative control of the secretary to Govt. of India.

b) Organisation at State Level

Under the Ministry of Health and Family Welfare in each state, there is a department of Health & Family Welfare which controls the Directorate of Health Services, Directorate of Family Welfare, Directorate of Medical Education of Training and Directorate of Indian System of Medicines. Each Directorate in headed by a Director.

c) Facilities at District Level

The district health authority, that is, the Chief District Medical Officer is assisted by the Addl. C.D.M.O. and other programme officers like A.D.M.O.(Medl.), ADMO (P.H.), D.M.O., D.T.O., D.I.O. and M.E.M. Officers. There is a District Head Qrs. Hospital with a number of specialists.

The district health organisation should be appropriately strengthened to cater to the growing needs of the expanding rural health and family welfare programmes. Not only the planning, implementation and monitaring of health and family welfare programmes are to be carried out at the district level, but also all the referral services from periphery i.e., P.H.Cs, Community Health Centres and Sub-Divisional hospitals are to be attended satisfactorily.

The primary health care will be provided by the Health workers (male & female) at the sub-centre level. Ofcourse the trained Birth Attendant and Village Health Guide can provide some services at the village level. The cases needing further help will be dealt with at the P.H.C. and those needing referral support by the specialists would be referred to the Community Health Centre or upgraded P.H.C. The second and third level referred supporters will be provided at the district Hd.qrs.hospital and the Medical College respectively.

d) Facilities at Community Health Centre

For a successful health care programme, effective referral support is to be provided. For this purpose, one community Health Centre is being established for every one lakh population and this centre will provide the main specialist services. The C.H.Cs are being established either by upgrading the sub-divisional hospital or some of the P.H.Cs or by creating new centre whereever absolutely needed.

e) Facilities at P.H.C Level.

One P.H.C. was established in each community development blocks which covers about one lakh population. Now one additional P.H.C. is being established for every 30,000 population. But at present one sub-centre is being established for 5,000 population in coastal/plain areas and 3,000 population in inaccessible/hilly and tribal areas.

f) Facilities at village level

In village for about 1,000 population, there is one Health Guide and one Trained Birth Attendant and are selected from the village community. These two village level functionaries are trained at the P.H.C. and they receive technical support and continuing education from the Health workers (male & female) posted at the sub-centre.

Essential Components included in Primary Health Care

According to the Alma Ata Declaration following components are to be included in Primary Health care.

1. Health education to the people about prevailing health problems and methods of preventing and controlling them.

2. Proper nutrition.
3. Supply of safe water and basic sanitation.
4. M.C.H. Care and family planning.
5. Immunication against major infectious deseases.
6. Prevention and control of communicable diseases.
7. Treatment of common diseases and injuries.
8. Provision of essential drugs.

Supportive Activities required for the success of Primary Health Care.

As recommended by the W.H.O., following supportive activities are essential for successful implementation of primary Health Care.

1. Community involvement and participation.
2. Intra and inter-sectoral co-ordination.
3. Development of effective referral support
4. Development and mobilisation of resources
5. Involvement of managerial processes
6. Health manpower development

ROLE OF HEALTH EDUCATION IN PRIMARY HEALTH CARE

Health education plays a vital role for success of primary health care. It is economically viable and most effective. It has sustained effects or the people. It helps the people to control prevent and eradicate the diseases. It creates health consciousness and provides impetus to lead a healthy, happy and prosperous life. It helps the people to be self-reliant for healthful living.

Unfortunately it is often complained that people are not accepting or utilising the health services provided at their door steps. The problem of non-acceptance is visualised as a failure on the part of the people and it is never reckoned to be the fault of the health services system. In such circumstances, Health Education has been considered to be a panacea for all the failures, the reasons of which are often termed as 'Orthodox families', 'problem cases', defaulters', non-acceptors', ignorant', illiterate',non-cooperative etc.

Teacher as Health Educator

Teacher in general and primary school teachers in particular can contribute to the success of primary health care, provided they play the role of an effective Health educator. They deal with the students and have access to their parents. They can teach personal hygiene and sanitation aspect to the students. They can provide supportive role required for success of primary health care by involving the community and increasing their participation.

Today we visualise a desire amongst people to acquire knowledge in different aspects of noly health but also on social and economic development. Illiterate they may be, but they have plenty of desires to know things. In this situation, teachers can play a vital role to provide some basic information and knowledge or health.

REFERENCES

1. World Health Organisation (1983) - Strategies for Health for All by 2000 A.D.
2. World Health Organisation (1982) - Review of Primary Health Care Devp.
3. Govt. of India (1983) - National Health Policy
4. Primary Health Care in India - Somnath Roy
5. Govt. of India (1980) - Primary Health Care in India.

Module No.HPE 7

ROLE OF TEACHERS IN SAFETY EDUCATION AT ELEMENTARY

Shakuntala Bhattachar

Need for safety Education in Elementary Schools.

Humans have evolved as adventurous social animals. During the course of evolution they become alert to dangers that their survival. The anticipation of danger and the ability to avoid and overcome then became a part of the social fabric. Inspite of this accidents do happen. They result from violation of rules, regulations, procedures and courtesies that have evolved over the years. Accidents are symptoms of disorder within the individual, customs of the community or the breakdown of a system.

Only a certain percent of present day accident are caused by hagards in the environment, the rest have human causes. At the elementary age level such accidents are caused by

a) lack of knowledge and experience by children of cause and effect
b) lack of skill in such activities as surmming, using surngs and cressing busy roads
c) improper attitudes and personal traits - e.g. showing bravado by taking unnecessary risks
d) inadequate emotional health, yielding an "accident prone" frame of mind.

Accident prevention in the school involves fostering a safe environment, (both physical and social), promoting mental well-being, and providing opportunities for practising safe behaviour conceptualization safety is a cultural concept. We can think of safety as a series of habits which have to inculcated into the child during the farmative years. Safety skills when integrated into other essential skills becomes the basis for a sensible life style. The role of the teacher is to develop in the pupils those attitudes that encourage them to act in the interest of their own safety, that of their families and society. Concern for safety in the classroom and life should not prevent the teachers from encourages initiative, adventure and discovery. Another responsibility of the teacher is to guide the students in moulding sound values, in guiding their decision kaming and thoughts to positive aspects and in regulating their behaviour.

Safety habits once inculcated lasts through life and many accidents can be avoided. Once accidents occur however it is very necessary to give first aid.

After going through this module the learners will be able to

- identify places and situations with potential hazards in the environment
- become familiar with the principles of safety
- become aware of the first aid to apply if accident occur.

SAFETY WHERE ?

(a) ROAD SAFETY

The most familiar area where safety rules are fairly well known is road safety. Growing amount of fast traffic even on rural roads poses great hazards to the pedestrian and to vehicles. The young pupils should be taught to cross roads safely and to drive safely.

Activity 1: List the safety rules to be followed by pedestrians and cyclists.

It is not only necessary to know rules of road safety but also to practise them. In large cities there are "traffic parks" where police personnel offer training in road safety rules. In rural areas however no such facilities are available and teachers.

must devise ways and means to teach these rules. A simulated situation may be set up with students acting out the part of pedestrian, cyclists, policeman etc. After practise in the school, the pupils under supervision may be encouraged to cross busy intersections. Other methods is to have posters made up from advertisements that are put in newspapers particularly during "traffic safety week". TV has also "spots" on road safety - and if most pupils have access to TV these may be discussed.

(b) SAFETY IN SCHOOL

Safety in the school is the direct responsibility of the teachers, and therefore one should be particularly aware of the hazards that exist in the classroom and the playground. In the classroom, the hazards might arise from children poking things into their ears and noses, unsafe conduct of experiments with fire and hazardous chemicals. In addition field trips may also pose a number of hazards. The largest number of accidents occur on the playground. These include injuries to the eye(particularly when playing with bows and arrows), cuts, bruises and sprains most of which can be avoided if proper care is taken.

Activity 2: (a) Make a list of the hazards in playground and ways to overcome them.
(b) List the precautions to be taken during a field trip.

Unlike road safety rules, the precautionary activities cannot be taught to the child in specific lessons, however constant vigils and warnings by the teacher should lead inculcation of habits which prevent accidents. If accidents do occur inspite of care taken by the teacher the teacher should apply first-aid as outlined in the last section.

(C) SAFETY AT HOME

Many of the safety procedures that apply to the school also applies to the home. Some precautions include

- keep sharp objects out of the reach of small children
- keep medicines, pesticides and other harmful materials away from children
- fire hazards prevention

Activity 3: Ask teachers to make a list of 10 dos and dont's regarding safety in the home for elementary school children.

Special feasts like Holi, Diwali and other festivities require extra safety precautions. The hazards,precautions and first aid are usually given over TV and Radio.

(d) SAFETY ON FIELD TRIPS

The safety of children while on a field trip are of prime concern to the accompanying teachers. For this reason they should survey the proposed site well in advance to identify potential hazards e.g. sharp objects, holes, slippery areas, fauna(poisnous insects, snakes etc.), busy roads. Entering deep water (rivers and ponds) should be forbidden for young pupils even if they claim to know swimming. Students should preferably move on groups, and within in sight of the teachers.Always carry a first aid box .

Activity 4: Make a list of safety warnings for pupils before going on a field trip.

FIRST AID

First aid is not medical treatment. It is ~~something~~ something that is done immediately after the accident and before medical treatment. If injury is not much first aid might prove sufficient. Some ~~sam~~ simple ones are outlined below.

CUTS AND BRUISES: Wash in clean, warm water, thoroughly to remove adhering dirt. Apply antiseptic. If the cut is deep and bleeding profusely, then apply pressure above the wound to stop blood. The pressure should not be continuous as the parts lying below wounded area should not be deprived oxygen. Get medical attention. Stiches may be required.

SPRAINS:Apply cold formenation. Avoid using the part. Do not rub. If the swelling goes down after some hours it is a sprain. If pain and swelling continues consult doctor. It may be a fracture or torn ligament.

FRACTURES: Fractures are not uncommon among children. To prevent aggravation of damage, stiffen by lying splines and unmobilising the part. Consult doctor at once.

INSECT BITE: Apply a dilute sodi-bi-carb solution. Some bites may lead to allergies. In such case see a doctor. If stings are left it may help to remove the sting.

SAND OR DUST IN EYE: Wash eye with clean cold water. Do not rub. The rough particles may scratch the eye and cause immense damage. If the particle still persists, hold the upper lid and bring it down over the lower lid. This may dislodge the particle.

BURNS: Hold burnt portion under cold (not ice) water till burning sensation ceases. Do not apply anything. Prompt treatment prevents blisters.

Module No.HPE-8

PHYSICAL EDUCATION AND GAMES FOR THE VISUALLY HANDICAPPED

Dr. Sushil Kumar Goel

Background:

The blind people are handicapped with fubleness, awkwardness and helplessness, in addition to blindness. The vitality of the blind is much below the average vitality of the sighted and any system of education which does not recognise and try to overcome that defect will be a failure. Even if a blind person is an accomplished scholar, a good musician, a skilled mechanic; no employer would appoint him if he is timid, awkward and helpless ? Without confidence, courage and determination to go about freely in the world there is no chance of success for a blind person and that confidence and courage are given by the playground and gymnasium. Children with impaired vision have the same needs for physical activities as others. But the fact that they are unable to see normally does restrict their play activity to such an extent that they are noticeably retarded in their physical development. Inactivity can result in poor neuromuscular coordination and endurance posture may be poor because of lack of strength in posture muscles. Failure to participate in physical education programme contributes to the tendency to withdraw from society. Helen Keller must have had some of these things in mind when she said, "The cause of the blind is not blindness but idleness. Because the urges of a blind child to move and play are frustrated he often develops certain mannerisms, known as blindness. These are physical movements through which he seeks to fulfil the need for muscular movement without moving about through space. Rocking back and forth, twitching of the head and jerking of the timbs are characteristics of blindisms. It is desirable to overcome these mannerisms. The aim of the special physical education programme is to help the student to achieve optimum physical, mental and social growth through a carefully planned programme of selected physical acticities. To accomplish it the following objectives are set forth:-

a) Develop optimum physical fitness.

b) Develop skills in the basic motor movements.

c) Develop a variety of sports skill for participation in sports as a worthy leisure time activity.

d) Develop a desire for continuous physical improvement.

e) Improve body image kinesthetic sense.

f) Promote an understanding in the student of the nature of his handicap and its limitation while emphasising the potentialities which may be developed.

g) Give a student a feeling of value and worth as an individual regardless of his handicap.

Physical Education is today accepted as an essential part of educatio n and has an important role to play in the welfare of the Blind. There is lot of confusion in interpreting what physical education is and what its programme should be. Since most of the institutions are under private management, their financial resources are limited and only the very minimum of facilities are provided. Even schools with reasonable financial resources find it difficult to get open play grounds if they are situated in a city. A spacious playground is an essential part of a school, for no satisfactory programme of physical education can ever be carried out without outdoor space. The ground shall be well laid out with various areas planned for promoting variety of activities. As a safety precaution the play area should be free of non-essential equipment of and unnecessary obstructions. For outdoor playing fields, hedges and shady trees are considered desirable boundaries rather than walls or finces which present a certain element of danger. Boundaries for games can be indicated by the in bound area composed of concrete and outbound area of send or grass. Players will then be able to till by foot sensitivity when they step out of bounds. To guide blind for outside running events, wires can be placed along the path of the runner to guide him. The runner will have a some sort of warning at the finish line; a sort of auditory signat such as a whistle may be sounded. Very few schools possess a Gymnasium worth the name. Every school should possess a Gymnasium so that physical education programme can be conducted regularly throughtout the year without being interfered by mensoon. Further certain activities are better adopted for indoor conditions. Apparatus is fixed under shady trees with the ground well levelled. It is not comfortable to use them when the sun is strong. Lack of playgrounds naturally leads to inadequate equipment. It is also due to the non-availability of certain types of equipment which are not manufactured in India. The balls to be need by the blind should be larger in sige and softer and they should be pointed while or yellow to make them more easily s'een by those with some vision. Bells or rattles inside the balls help to indicate location to the blind . One reason why ball games are not promoted in India schools for the blind is the non-availability of balls. The special balls like sound balls or bell balls are not available in India.

Games for the Blind:

In some of the institutions in India, the following games are available (a) Playing Cards, (b) Chess, (c)Cricket Ball, (d) Draghts Board, (e) Chinese Checker, (f) Puggles, etc. These games are mainly indoor games and their adaptation for the use of the blind is easy. Both the blind and the sighted can play together the games like chess and cards which provide recreation as well as contact with people. Resently the Western World has started popularising sports like swiming, ball games, track and field events and wrestling. Regular sports halp in rehablitation and integration and are significant for the mobility of the blind. In India, cricket is becoming popular among the blind boys. The institutions should welcome their efforts and try to encourage them further for other suitable steps.

Nearly all the varieties of activities offered to normal children can be presented to blind children. Some require more adaptation then the others but the blind children enjoy and need participation in the same games, sports and physical activities. Dancing has value for the development of rhythm, timing and coordination and as a means of expression through movement. Swimming is high in recreational and safety values and is one of the best forms of total experience. Wrestling offers an unusual outlet for all-out performance of strength speed, ability and endurance. Developmental and corrective exercises are of particular value because they provide a safe kind of vigorous activity in which improvement of body mechanics and the development of strength, endurance and egility are ready available.

Physical education programme in a school can be divided into two parts:- (a) Instruction period - Physical education within the time table & (b) Participation period - physical education outside the time table.

(a) Instruction period is used to teach the activities as prescribed in the syllabus. Physical education classes are included in the time table. Usually, two/three periods a week are allotted for lower classes and only one/two periods a week are allotted for higher classes.

(b) Participation period is usually after the regular classes. During this period students join in various activities at their option. During such participation they play games of their choice and get coaching for developing higher skills. So provide practically every student to participate in competitions a good intramural programme should be organised. There is some difference of opinion regarding participation by the blind in interscholastic athletics. There is no substantial eveidence to indicate whether the values or evils which appear in the competitive sports programme for normal youngsters are greater or lesser for blind players. It would seem desirable to provide the same opportunities for blind students. Competition may present a difficult problem as there will be few blind schools near enough to make travel feasible. Competition with regular schools in certain events can be conducted satisfactorily.

Physical education is a specialiged field with its own techniques and levels. For the best results, it is therefore important that the teachers of physical education are appropriately trained. Qualified physical education teachers are available in some schools but they are not specially trained to teach the blind. In many schools class teachers who are good at games and, interested in games help in conducting play activities. Techniques of teaching may be defined as the special methods. The teacher uses to handle instructional problems efficiently and to deal effectively with the varied responses of different children. Teaching techniques used by physical education of teachers are of three general type vig, verbalization, visualization and kinesthesis. Out of these verbalization and kinisthesis can be used for the visually handicapped. Verbalization refers to the use of spoken word in the process of teaching. Describing a skill is an example of the use of this technique. The use of kinesthesis refers to the involvement of muscular activity in teaching learning situation. In a sense the adjustment a student makes when his muscular movements have not achieved satisfactory result is a phase of kinesthesis.

In view of the above it, therefore, becomes necessary to develop a special training programme to quality a physical education teacher to teach physical education to blind children. Education and training is the manifestation of divinity and perfection which his in human spirit and soul. Physical education is an education through physical activities foc development of total personality of the individual to its fitness and perfection in body, mind and spirit. It has comonly been said that, "If wealth is lost, nothing is lost. If health is lost, something is lost. If character is lost everything is lost". Physical education plays no less an important part than education in academic subject in the coordinated development of the personality of the child to make him a physically fit, mentally alert, emotionally sound and socially acceptable citizgen. Physical education plays a vital role in modern life. Moral health depends on physical equilibrium. Physical education has an important influence on the development of personal character. It has helped to achieve physical, mental, social and moral qualities to develop the total personality of man, which is the ultimate aim of education. The aim of physical education is to provide skilled leadership, adequate facilities and ample time for affording maximum opportunities for individuals and groups to participate in situation that are physically wholesome, mentally stimulating and satisfying and socially sound. The aim of physical education is to maintain and improve health to looser up and strengthen the muscles, improve physical resistance and turn a child into an agile and lively being. This can be categorised as:-

1) Conservation of Physical and emotional health;
2) Development of body, leading to the harmonious development of all organs;
3) Inculcation of qualities of endurance, patience, selfcontrol, courage, etc. and;
4) Development of regular habits of work and pay with due emphasis on intellectual, moral and physical development.

Physical education is universally considered as an integral part of education because it contributes to the attainment of fundamental process, co-ethical character, worthy borne membership and good citizenship. It is that phase of education which has to do with the development and training of the whole individual through physical activities. " Practice makes a man perfect" is true when only practice is done in the proper style of execution . Execution of skill in the proper style is important for achieving higher performances and satisfactory results. One of the prime factors to enjoy is mastery of skills. Skill is defined as the ability to perform. Performance of right type of activities leads to the following benefits:-

1) The heart and blood vessels operate more efficiently. The heart is able to pump more blood per contraction, this doing more work with less effort.
2) The respiratory system functions more efficiently. Exchange of carbon dioxide and oxygen takes place more rapidly and vital capacity is increased.
3) The work capacity of the muscular system is increased making for greater endurance.
4) The central nervous system is trained to coordinate other systems effectively. Finally the general health is improved by proper exercise. Then it increases the individual's zeal and alertness, making him a more vibrant, efficient being.

Physical education gives practical training to the blind to become a fully trained person to take his right place in society and often brings the blind and the sighted together. A blind person does not differ from a sighted person as far as his mental structure is concerned physical activity is the best way to prevent blind invididuals from getting isolated and lovely. The blind should be encouraged to find their way to the sighted and ultimately the sighted may want to learn or know the events that are typical of the visually handicapped. Physical activities and exercises are of particular importance to the blind because their possibilities to more around are limited if we compare them with the sigh-ted. If the limitations of the blind are taken into condideration, many physical exercises can be modified according to the needs of the blind. Pity and overprotection by the parents on account of lack of information have prevented many blind persons from participating in physical activities. As a result , the large trunk muscles and vital organs will not develop. Safety precautions should be given importance. Environment must be familiar to the participants in physical activities. All equipment and apparatus must be checked carefully and they should be taught carefully how to use them. Another important factor is that participants should be well informed about the apparatus they are going to use.

Continuous coordination between physical education and health care is a must. The physical educator must follow the advice of the physiotherapist and dutician and then apply the exercises to the blind. The main objective of physical exercise and corrective therapy is physical restoration, and that&s 'physical education of the blind' may be called 'physical rehablitation of the blind'.

Corrective Exercises

Visually handicapped children can benefit from corrective exercises in posture, coordination gait, etc. These children need to be engaged in elementary activities such as jumping from the bottom step of a blight, climbing stairs correctly, hopping, skipping, jumping upward and forward, running, etc. Without attaining mastery in these activities, the blind children may not be able to participate actively with more experienced sighted children of the same chronological age. These children then come to kindergarten or first grade at a lower level of readiness for physical education then their seeing peers. Since they can neither see themselves in mirrors nor they can see others to imitale, they need to be given necessary activities and active play experiences - walking, jumping, climbing, rolling, hopping etc. - so common to young children to strengthen muscles and produce tone.

Day School Programmes

In day school programmes, the classis are of large size and the physical education teachers may hesitate to include a visually handicapped child lest he be ingured. The resource soom teacher should work out a cooperative arrangement with physical education teachers and with regular classroom teachers. In order to provide physical education for the visually handicapped and yet not put the school at a disadvantage, a mobility teacher might serve here as physical education teacher. Thus he combines his training in physical education and special education. He may divide his pupils into two or three homogeneous groups and then include sighted children to provide healthy integration.

Residential Programmes

In a residential programme, classes are small, although a given group of children has its range of abilities and heterogeneity. Specialised equipment and adapted conditions make physical activity natural and pleasant. Rules of games and techniques of play can be modified- using a large ball instead of the standard size, rolling the ball instead of throwing it, using a guide wire in track events, etc. Teachers may have had some special education training in the area by the physically handicapped and be less bearful about active play for these children.

Physical Education and Recreation

Physical Education and recreation run in a parallel line rather than lying end to end.
recreation can be reasonably two are not separable.Freqnently

physical education programmes fail, not because there are too few organised sports ar school but rather because children, when not in school under the direction by the teacher or coach, either do not know how to use leisure time profitably or have no desire to be so engaged.

As far as family recreation is concerned; some activities, such as table games, regarding, membership in clubs, spectator sports, etc. may be mentioned. Some of them are conducted singly, whereas others are best enjoyed in the company of friends, seeing or visually handicapped. Some pastimes are sedentary, while others are active and vigorous. Variety is the key to refreshing leisure time pursuits.

Module No.HPE 9

EFFECT OF EXERCISE ON BODY:MUSCLE, RESPIRATION,HEART

Manamohan Rout,
Lecturer,
Govt. College of
Physical Education,
Cuttack.

The human body seems to be a simple structure as we observe it daily. But practically it is the most complex structure in the universe. Everyone of us is in charge of this delicate and intricate machine, the body and it is our foremost duty to learn how it works and how it can be looked after properly. To study about it two branches of science have been developed, namely anatomy and physiology describing the structure and function of the body respectively. In other words the body is the congregation of different units or systems. As some locomotive to run properly with all its parts must be well oiled and well organised, likewise the human body needs exactly that to have all its organic systems in good condition and properly systematised. Ultimately bringing in the soundness of organisms life i.e. proper health and fitness.

The different physiological systems, again brought in one major scientific area in the field of physical education and mass fitness programmes which grows rapidly now -a-days is that of exercise physiology. Over the years much have been experimented concerning the pros and cons of exercise on the normal growth and development of the young child. The effects of physical activity resulting from various researches indicates that exercise in general not only contributes to the normal growth and development of the bones and muscles but also it acts as the stimulant in the development of the other vital internal organs.

Exercise physiology is the effects of exercise on different organic systems of the body. The systems present in our body are muscular system, skeletal, circulatory, digestive, respiratory, reproductive, excretory, endocrine, senses etc. specifically exercise physiology is concerned with those systems responses and adaptations to exercise. The modifications commencing during exercises may be short termed but it can be long termed as long as the ac tivity continued on a regular basis. Knowledge of the effects of exercise is essential and helpful for the practitioners, whether they are participants or teachers in schools, coaches fitness leaders or the physical education teachers.

Exercise is needed for all year long starting from the childhood to old ages. For proper functioning the human organism and organic systems, need exercise as an essential ingradient on a regular basis just as it demands nutrious foods everyday. Dr.Edward C.Schneider a famous physiologist after a life time study on the effect of exercise came to condlusion that, "Frequently repeated exercise extending over months and years is necessary for healthy existence, it is a physiological need of primitive kind which can not be eliminated by civilization". (It is difficult to find men who have been injured by muscular exercise but easy to find many who have failed of normal development and been ruined by lack of it.

Exercises have been catagorised into different types:-

1) Active Exercises
2) Support exercises
3) Passive exercises
4) Postural exercises

Active Exercise
- Exercises of speed-(sprinting,running)
- Endurance- long distance running,swimming, mountain climbing, cross country
- Strength - Isotonic,Isometric,Isokinetic, dynamic static
- Skill - Acquiring a skill
- Attention-
- Alertness-

Support Exercises - The balancing exercises

Passive exercises - Massage

Postural exercises - Exercises meant for spine,joints and bones.

Though different types of exercises are there still most commonly used exercises for the development of health, fitness are the active exercises.

However those exercises do have some definite effects on the organic systems. The important organs of the body get involved during exercises are the

a) muscular system

b) respiratory system

c) heart and cardiac cycle

These are the three major body parts on which the discussion may be made.

EFFECT OF EXERCISE ON MUSCLES

1) The sarcolemma of muscle fibres become thicker and stronger. (The part that surrounds each muscle fibre by connective shealth tissue).

2) The amount of connective tissues called as epimysium and perimysium thickens.

3) The size of the muscle increases not the number.

4) The muscle gains greater strength

5) The muscular endurance increases. It means the muscle cells exercised properly gain a power to delay the fatigue after some streneous work and quickly recover from fatigue.

6) There is a chemical change in muscles when the regular exercise is made. An increase of the chemical substances like phosphocreatin contents, glycogen, non-nitrogenus materials and hemoglobin commences.These chemical substances prepare the muscles for the streneous and hard work.

7) The nerve impulses travel more readily across the major endplate in the muscle fibres during contractions.

8) Muscular activities also cause a rise in muscle temperature. During streneous prolonged exercises the body temperature may rise very high. To prevent excessive rise in temperature a heat dissipating mechanism is set in operation.

9) The contraction and relaxation of muscles the movement of joints and bones occur. It help in the mobilization of body parts during activities.

EFFECT OF EXERCISE ON RESPIRATION

1) The diaphragm is the principal muscle of respiration during rest. The muscles involved especially in respiration are external intercoastals, scalers, sternocleidomastoids, the trapezius and extensions of back and neck are developed while heavy respiration is needed.

2) Practicing exercise in earlier ages result in a greater expansion of chest cavity and the depth of chest is increased.

3) The blood is exposed to oxygen over a greater area.

4) Alveolar ventilation is the most important. Exercise improve (i) the depth of breathing (ii) Frequency of breathing (iii) the size of dead space.

5) Respiration during exercise is regulated by nural and temperature factors.

6) During exercise minute ventilation or pulmonary ventilation is regulated more to the need of the carbon dioxide disposed than to oxygen consumption.

7) During exercise the diffusion surface capacity is increased at both the alveolar capillary and tissue capillary membranes due the fact that many more capillaries now open.

8) During exercise the hemoglobin concentrations in the blood increases thus resulting in an increased oxygen carrying capacity of blood.

10) Exercise practices improves the following pulmonary functions by larger resting and exercising lung volumes and capacities of athletes and non athletes.

Total Volume :-	The volume of air breathed in and out during each respiratory cycle.
Inspiratory reserve Volume:-	The maximal volume of air that can be taken in following inhalation of tidal volume.
Expiratory reserve Volume:-	The maximal volume of air that can be exhaled following the end of a normal exhalation of tidal volume (Co_2).

Residual Volume:- The volume of air still remains in the lungs following a maximal exhalation.

Total lung capacity:-The volume of air contained in the lung following a maximal inspiration.

Vital capacity:- The maximal volume of air that can be forcefully exhaled from the lungs following a maximal inspiration.

Inspiration capacity:The maximal amount of air that can be taken in following a normal exhalation of tidal volume.

Functional residual capacity:- The amount of air remaining in the lungs at the resting expiratory level.

EFFECT OF EXERCISE ON HEART

The total work of an individual accomplished is restricted largely by the heart, for this organ pumps blood, which in turn carries oxygen and nutrients to the cells of the body and transparts away the waste products such as Co_2, metabolic products, lactic acid etc. which are formed by the chemical changes in cells taking place during exercise. It has its structural properties, cardiac cycles, cardiac output and stroke volume etc. When the individual engages himself in different exercises, physical activities, sports or games etc.

1) The cardiac cycle involves all the pressure changes, volume changes and valve actions that take place during one complete phase of contraction and relaxation of heart.

2) From a functional view point, cardiac output is the most important aspect of heart function. It is determined by the product of heart rate (beats/minute) times stroke volume (ml/beat). Endurance exercises bring about a greater working cardiac output and stroke volume.

3) In both trained and untrained individuals heart rate increases linearly as work load and oxygen consumption per minute increases.

4) The heart rate reacts differently to certain kinds of exercises. For example the greatest acceleration of the heart occures in exercise of speed such as sprint running. Smallest increase takes place in exercise of strength such as weight lifting, Endurance exercises such as distance running increases the heart rate somewhere between those of speed and strength exercises. Heart rate recovery however takes longer following endurance exercises.

5) In addition to specific types of exercises and training the factors like age, sex, postures, emotions and environmental factors.

6) During exercise the increase of stroke volume is due to a greater emptying of the left ventricle.

7) A slow heart rate combined with a large stroke volume is the charasteristics of a trained individual and thus indicates an efficient circulatory system.

8) The normal heart of the trained endurance person has a greater pumping capacity and is able to provide more oxygen to the working muscles then the untrained heart. That is athletic heart - which has an increased capacity due to (a) an increase in the amount of blood flow (b) An increase in number of capillaries (c) an increase in the mitochondrial size and their content and in their related enzymes.

9) Some of the benifits of the aerobic exercise include the ability to utilize more oxygen during streneous exercise, a lower heart rate at rest, the production of less lactic acid, and greater endurance. It reduces blood pressure and changes blood chemistry. It also improves the efficiency of heart. Aerobic exercise is responsible for development of supplement blood vessels to the heart which would be helpful in the event of a heart attack and also such exercise results in increasing the size of coronary arteries and thus assisting the flow of blood to the heart if the artery is narrowed by a clot.

*****

Module No:PE 10

EVALUATION STRATEGIES IN PHYSICAL AND HEALTH EDUCATION AT ELEMENTARY LEVEL

Dr.D.K.Bhattacharya,

Introduction:

Physical and Health Education could be considered as integral part of teaching-learning process in an elementary school. Physical and Health Education programme at elementary level should highlight the development of Total Health of the learner. Development of total health implies harmonious development of physical, mental and emotional health of the learner. It should also highlight cultivation of certain basic qualities, attitudes, values and practices related to healthful living, sanitation, nutrition and fitness of the body so that the health status of individual learner, family and community improves. Evaluation strategies in Physical and Health Education programmes at elementary level has the following distinctive features:

1. Areas/Scope of evaluation in Physical and Health Education should be broad-based. It should highlight not only pupils performance/progress but also the effectiveness of teacher competancy and programme evaluation.

2. Evaluation of Pupil performance/progress should highlight non-scholastic areas more : Psychomotor skills/ competancy and socio-emotional traits related to affective domain in addition to scholastic domain.

3. Evaluation of Socio-emotional traits or personal / social qualities should focus the acquisition/inculcation of qualities/characteristics like discipline, leadership, cooperation, civic sense, cleanliness, emotional stability, initiative drive and industry in individual pupil.

4. Evaluation of the pupil performance, effectiveness of teacher competancy and programme implementation should be done with reference to identified MLL in various areas of physical and Health Education.

5. No rigid and formal testing should be introduced at elementary level.

6. Periodic assessment of pupil's progress should be done through various techniques.

7. Techniques of evaluation of pupil's performance may include (i) skill assessment, (ii) Recording of evidence/ periodical check ups of physical, social and emotional traits undertaken through formal and informal observations and oral testing in Cards/schedules/observation sheets. (iii) Medical inspection and check up (iv) knowledge testing through objective type items (with emphasis on multiple choice type of items).

8. Grades instead of marks should be used while measuring skills/competancies/traits/characteristics/knowledge

Areas of Evaluation in Physical Education

Evaluation in Physical Education should deal with three basic aspects:

A) Evaluation of Pupil's Performance/Progress in various areas of physical education such as Physical Education, Health Education, Recreation etc. Evaluation of students performance could be formal or informal. Evaluation in physical education may highlight either progress of individual students or the progress of students in group. Evaluation of students performance should be done with reference to MLL identified in respective areas of physical education.

B) Evaluation of Teachers Competancy in organisation and management of activities in various areas of physical education, Health Education and Recreation. The purpose of evaluation of Teacher competency is to improve the instructional process or to measure the teachers effectiveness.

C) Evaluation of Effectiveness of School Programme on Physical Education. The purpose of school programme evaluation is to evaluate critically the total programme or select programme areas.

A. Evaluation of Pupils Performance/Progress:

The focus: Pupils performance progress in various areas of physical education could be evaluated with reference to process evaluation or product evaluation.

Procress evaluation refers to evaluation of pupils performance in general movement patterns in acquiring various skills involved in an activity. The style of movement in acquisition of sequential skills involving an activity is the point of focus rather than outcome of skill performed.

Product Evaluation refers to evaluation of performance outcomes in terms of measruable skills/competency that the pupil has acquired.

Example 1: In fundamental ball skill product evaluation refers to how far the ball was thrown, the process evaluation deals with the quality of throwing pattern.

Example 2: In cricket bowling the product evaluation refers to how many wickets were taken by the bowler while the process evaluation refers to the quality of ball throwing pattern, the number of runs the bowler has allowed in an over etc.

The Basic Issucs:

Evaluation is the area of students performance in various aspects of physical education centres round the following basic issues:

1. To devise a system of recording which is valid, objective, reliable and less time-consuming.
2. To identify the number of skills in sequence to be observed/recorded/measured.
3. To decide the frequency of observation/measurement of a trait.
4. To decide the proportion of time to bedevoted for evaluation of in-class or out-of-the class activities.

Evaluation of skills:

1. In playing a particular sport/game/atheletic item a number of basic skills are involved. In view of wide range of skills in various sports and atheletic items selection of most important skills involved in an activity is essential.

2. The skills involved in sports/atheletic events depends on some degree of strength/endurance. On many occasions it becomes difficult to understand whether a participant attained a specific score due to physical fitness or sports/atheletic skills.
3. The nature of skills involved in differents sports/atheletic events are not uniform, they vary. A skilled gymnast may not be a good swimmer or football player.
4. Certain basic skills such as speed, balance and coordination are common to many sports/atheletic events.
5. A skill evaluation should be simple in execution. Several aspects of a particular skill should not be measured as a time.
6. Skills are to be arranged sequentially as per expert judgement otherwise it may result in complications. Test should measure one aspect of a skill while the other aspects should be kept constant.
7. The evaluation result of skill should help in suitable differentiation of student abilities.
8. The skill identified in sequence should be suitable for the age level of the pupils.
9. The dimensions of skilled performance are :
   a. Number of successful performance
   b. Accuracy in performance
   c. Time taken to acquire a skill is used to measure speed in running, swimming, jumping, skating or skiing, Speed may be measured by scoring the difference covered in a set time.
   d. Distance - a linear range covered by a performance such as throw, a hit, a jump, or a vault. Linear measurements may be used in broad jump, short put, discuss, javelin, high jump and pole-vault.

Identification of skills in sports/games/atheletics events

Example 1: Skill involved in Badminton

i) Short serve
ii) Long serve
iii) High serve
iv) Smash stroke
v) Frequency of stokes
vi) Time-taken for stroke

ExampleII: Skills involved in Horizontal Bar(Gymnastic)

1. Back circle to frong support
2. One-half-circle forward
3. Single knee hang, swing head above bar 3 times
4. Assisted swing dismount-3 swings
5. Two chins up - each grip
6. Single knee hung, single knee mount
7. Single knee circle forward(reverse grip)
8. Left half or right half left, double knee circle backward
9. Double knee swing dismount
10. Short underswing dismount 5 feet
11. Jump to single knee uprise
12. Forward knee circle
13. Left half right or right half left, double knee circle backward
14. Four chins ups each grip

Example III: Skills involved in Track events

1. Skill of sprinting
2. Skill of pacing

Example IV: Skills involved in Basket Ball(Group Skills)

1. Passing
2. Shooting
3. Jumping
4. Dribbling

Example V: Skills involved in Football(Group Skill)

1. Passing
2. Catching
3. Kicking
4. Running
5. Pass defence

Example VI: Skills involved in Hockey

1. Drive
2. Dribble
3. Fielding
4. Turning to the right
5. Dodging

Example VII: Skills involved in Volley Ball

1. Ability in passing
2. Volleying
3. Serving
4. Performing the set up

Process Evaluation in Students Performance:

Process Evaluation of Students performance may deal with evaluation of skills, comparison of entry behaviour with later performance, physical fitness, knowledge of a particular sport/activity.

1. Evaluation of skills involved in an event/activity:

Psychomotor domain is one of the major area which should be highlighted in process evaluation of students' performance. For evaluating any activity in the physical education area skills involved in a particular activity should be listed in sequence so that they could be evaluated during practice/learning stage. Check list could be used as a tool of evaluation when skills are listed in proper sequence.

Sample check list

Sl. No.	Name of the student	Skills listed in sequence								
1.										
2										
3										
4										
5										

Skills are to listed in sequence at the top. The name of the students could be inserted in the left hand side. Child's performance against the skill items could be checked while checking each skills items 3 point rating could be used. 0,1,2 could be rating points where 0 = No Conformance, 1=Partial Conformance and 2=Complete Conformance. This type of check list would be of great help in making proper diagnosis of students defeciency in acquisition of skills and help the students to understand the fundamentals necessary for improving performance. Evaluation of skill would indicate to the teacher what progress is being made by the students and when re-teaching is necessary.

2. Comparison of entry behaviour with later performance:

Annecdotal Record Sheets could be used for informing students about discrepancy between their entry skills and present performance. In Annecdotal Record Sheets observation are recorded at the beginning of an unit/activity which could be compared with the performance at a later date.

Sample Annecdotal Record Card

Teacher ______________________________

Class ____________ Event/Activity __________ Date __________

Ram: Progress is not satisfactory. He is to practice more.

Shyam: Seems to be discouraged about the event. May be discussed with his parents.

Bharati; Performance excellent, She may help others.

2. Measurement of the level of Physical fitness of the students'

A Physical education teacher conducting school fitness programme is generally not concerned with laboratory method of measuring body compsotion and estimation of body fitness. Age-height-weight tables for males and females could be considered as one item to measure physical fitness. Each value in Age-height-weight tables is an 'average' weight for a given age, sex and height. Though the value does not reflect an ideal weight but indicate the average weight for people of a particular sex, age and height.

The School Cumulative Record card should contain a section dealing with permanent health record and physical fitness. Health and physical fitness should be reported to parents.

B. Evaluation of Teacher Competancy in Physical Education:

Teachers competancy in management and organisation of activities in various aspects of physical education could also be viewed from product evaluation and process evaluation. The process-oriented physical education teacher is more concerned whether the students have acquired proper patterns, skills performance and positive attitude towards the activity or whether the student has acquired the right technique. On the otherward, a product oriented teacher is more concerned with the outcome of the game - Win or defeat. He is not interested about the proper patterns of skilled performance, students attitude to learning physical education/health education/ recreation activities or about the techniques of performing an activity. In a foot ball match the product-oriented teachers is more concerned with losing or winning the game. The teacher competancy could be evaluated by use of methods such as checklist, rating scales and observation schedule. If the number of choice points are more the level of unreliability of ratings increases on may occassions, Check lists and Rating Scales are informed by subjective impression and opinion of the evaluator. There is a need for developing a systematic method of observation of teacher activity for quantification of teaching process. Siedentop text-entitled 'Developing Teaching Skills in Physical Education'(1983) may provide necessary guidelines for developing systematic teacher self-observation. Techniques used by Dart et al (1988) in systematic observation instrumentation for physical education could also be utilised for the purpose. In order to develop systematic method observation of teacher activity in Physical Education the following aspects are to be taken into consideration;

1) Recording of frequency with which a certain teachers behaviour occurs, Not the quality of teacher behaviour, quantitifaication of teacher behaviour in organisation/management of various activities is the principal point of focus. Observable teacher behaviour could be recorded.

2) Length/duration of certain behaviours could be recorded in terms of minutes and seconds. The data could be converted into percentage so that comparisons could be made lesson-wise.

3) Intervals should be allowed between observation and recording of individual teacher behaviour. 6 to 12 seconds intervals could be allowed twice - one for observation and another for recording.

4) Since the nature of strength, weakness and concerns for improvement varies from teacher to teacher only one behaviour should be evaluated at a time. The teacher is to maintain a balance between instruction and practice. An observer could record this balance in each teaching episode.

5) Management skill of physical education teacher is very vital. There is a need of management skill when students are grouped into different formations when apparatus and equipment are handled and when directions are given in these areas. The adequacy of duration of management time could be evaluated.

6) The teacher involvement in practice time is to be evaluated. Teacher is to organise skill practice in order to inculcate skills in students during physical activity. In order to evaluate practice time, duration recording is most effective method.

7) Teachers ability in identifying Response Latency may also be evaluated. Teacher should be able to judge how quickly the students response when commands or signals are given.

8) The type of feedback the teacher offer to students which **improves** the physical education instruction may also be evaluated. The nature of verbal and non-verbal feedback corrective instructional feedback, general and specific, feedbacks may be evaluated.

9) Teachers ability in evaluating students performance should also be evaluated. The teacher should be able to evaluate the performance of the students through placheck (planned activity check) observation technique (Siednetop,1983).

A sample Teacher Rating Scale

Name of the teacher ______________________________

Activity ______________________________________

Grade ____________________

	3	2	1	Comments
1.Personal qualities;				
Appearance				
Neatness; appropriate dress, clarity of language				
Foresight				
Creativity				
Enthusiasm				
2.Quality of activity planning, confidence, self control.				
3.Activity management				
4.Teaching technique				
5.Adequate activity				
6.Demonstration(if any)				
7.Safety precautions taught-observed				
8.Ability to supply/prepare facilities/equipments.				
9.Clear communication of ideas				
10.Sensitive to student ideas/needs				
11.Provide positive reinforcement/ encouragement				
12.Accomplishes objectives				

13. Appropriate progressions
14. Adjust to student ability

General evaluation

3. Above Average/superior
2. Average
1. Below average

Evaluator
Date:

Students performance in Socio-emotional Traits or Personal-Social Qualities:

Certain socio-emotional traits or personal-social qualities have relevance to Health and Physical Education. These are:

1. Discipline
2. Leadership
3. Cooperation
4. Fellow feeling
5. Initiative
6. Cleanliness
7. Emotional stability
8. Drive
9. Punctuality

Students performance in selected socio-emotional traits should be assessed periodically. Check list could be used as a tool of evaluation.

Sample check list:

		Socio-emotional traits								
Sl. No.	Name of the student	1	2	3	4	5	6	7	8	9
1										
2										
3										
4										
5										

Socio-emotional traits may be listed in at the top. The name of the students could be inserted in the left hand side. Child's performance against a parti-cular trait could be checked. While checking each trait item 3 point rating could be used. 0, 1, 2 could be rating points where 0=Excellent, 1=Average and 2=Poor. This type of check list would be of great help in making proper diagnosis of students defeciency in acquisition of personal social qualities.

Reporting to parents

The performance of the students' in the areas of performance test (skill test), Fitness Test and Knowledge Test may be communicated to the parents in the Physical Education Grade Card as shown below:

Physical Education Grade Card

Students Name	Teacher's Name:		Class Section
Ist terminal	2nd terminal	3rd terminal	Average grading
PT-	PT-	PT-	PT-
FT-	FT-	FT-	FT-
KT-	KT-	KT-	KT-
SETT-	SETT-	SETT-	SETT-
Grade	Grade	Grade	A.V.Grade
________	________	________	________
________	________	________	________

PT = Performance (skill) Test

FT = Fitness Test

KT = Knowledge Test
SET= Socio-emotional traits

Elementary physical education progress check list

Student:- Class - Teacher-

In the physical education programme of the schools activities have been selected in order to develop specific skills. The ratings are based on various tests during various physical education activity programme. The check mark indicate a satisfactory performance has been demonstrated by the pupil.

1.Ability to perform basic soccer skills -

2.Understand the rules/team play concepts of soccer -

3.Accept decision of the Leader (teacher/student) -

4.Achieved satisfactory rating on performance test -

Product evaluation

Sports/Athaletic knowledge Tests

Objective sports/atheletics knowledge tests(Teacher made) may be constructed which may include coverage of history, rules, techniques and strategies. Multiple choice type of items have immerse potentiality.

The examples of Multiple choice type of items are given below:

Multiple Choice Type of items(Knowledge)

1. In volley ball foul occurs by
   (a) Hitting the ball with fist
   (b) Hitting the ball with the head
   (c) Hitting the ball with the wrist
   (d) None of the above

2. Tennis Service is made from

(a) Service line

(b) Center line

(c) Side line

(d) Base line

3. Comprehension

A score of 6 - 4, 4 - 2 mean in Tennis

(a) A has won 10 points to B's

(b) A won 6 points in the first game and 4 in the record

(c) A has the advantage score in set

(d) A won first set and is ahead in the second

4. Application

The drives should be used in Tennis

(a) When playing behind the base line

(b) When playing just in front of the service line

(c) When playing net position

(d) When playing midcount, with ball coming directly towards one's feet .

5. Which of the following strokes most nearly resemble each other ?

(a) Volley-drive

(b) Smash - serve

(c) Lol - Volley

(d) Smash - drive

C) Evaluation of effectiveness of school programme on physical education

Evaluation of the effectiveness of school programme in the area of physical education would indicate

1) Programme coverage
2) Facilities equipment and supplies
3) Transactional methodology
4) Curriculum transaction
5) The strength of the programme
6) The weakness of the programme
7) Need to expand or reduce the programme
8) Need for more emphasis on a particular aspect of the programme

A four point check list may be developed for evaluation of effectiveness of school programme.

Module No.HPE 11

Health Education in the Elementary School and Minimal Levels of Learning

S.Bhattacharya

DEFINITION OF HEALTH

Health and hygiene, along with language and mathematics have formed a part school education in our country since pre-independence day, while other subject areas have changed over the years (Geography & History - Social Sciences - Environmental studies at primary level) and new areas have been introduced e.g. SUPW. In the case of health education the change has been internal. Health in the hygienic sense, evolved over thousands of years as an approach to survival and fitness. It focussed mainly on how to stay disease free. The modern concept of health has undergone a sea-change. World Health Organisation has defined health as a state of physical, mental, social and spiritual well-being. It is these dimensions that needs to be inculcated into the curriculum.

DIMENSIONS OF HEALTH EDUCATION

"Wellbeing" is a dimension that is very difficult to measure. It may theoretically be identified by five fitness components: physical fitness, emotional fitness, social fitness, spiritual fitness and cultural fitness.

Sorochan and Bender (1979) has suggested the following salient characteristics of each type of fitness.

1. Physical fitness (maintenance of body processes)
   a) efficient functioning of body systems and organs
   b) ability to resist infections and communicable diseases

Contd...2..

c) freedom from disease, infirmity or physical disorder

d) avoiding substances and experiences hazardous to optimal physical fitness

e) overall minimum muscular strength

f) eating a variety and a balance of foods regularly

g) minimum cardiovascular - respiratory - muscular endurance

h) heuro muscular coordination, flexibility and balance

i) weight normal for body height, age, sex and body density.

2. Emotional fitness (mental fitness) - (feelings, thoughts and self-identity.

a) coping successfully with the stress of daily living

b) being flexible in all social situations

c) feeling worthwhile and adequare as a person

d) feeling content and happy

e) feeling a sense of accomplishment and self-realizati

f) facing up to and accepting reality

g) feeling worthwhile as a member of society by meeting the demands of life

h) having emotional stability

i) exercising self-discipline and self-confidence

j) accepting responsibility for one's behaviour and social roles

k) feeling good about self and others

l) having worth while hobbies and recreational interests

m) being able to give, express and accept love

n) having an adequate self image.

3. Social fitness (relating to others)

a) having a human approach to living and dealing with others

b) setting up own minimum moral standards of conduct

c) having ethical integrity in interpersonal relationships

d) wanting to share with and to contribute to the happiness and welfare of others.

Contd...3..

- e) socialising by doing things with others and by becoming involved with others
- g) cultivating close friends.
- h) being able to make new friends
- i) being able to relate to people of all ages
- j) behaving in socially acceptable way (morals)

4. Spiritual fitness (aspirations and ideals)

- a) aspiring for a safer and a more abundant life for oneself and for one's society.
- b) aspiring toward "the better things in life"
- c) feeling an awareness of a purpose in life and that living and life itself, are worthwhile
- d) being able to appreciate art and aesthetics
- e) having ambition to achieve and to accomplish
- f) being able to agive way to creative imaginations as well as optness to express creativity
- g) being able to set attainable goals and to experience success and self-fulfilment of these
- h) having courage to face the unknown
- i) willing to take calculated risks
- j) feeling that what you do is worthwhile and appreciated by others.

5. Cultural fitness (identity with community)

- a) responsible involvment in community affairs
- b) serving others as a pulelic servant
- c) being a contributing member of society
- d) attending and/or participating in cultural festivites and social functions e.g. music, art dance etc.

HEALTH EDUCATION: IN ELEMENTARY SCHOOL CURRICULUM

The wide demensions of modern concept of health, brings to the fare the idea that achievement of health

Contd...4..

cannot be effected through a single subject area, but through the whole curriculum particularly at the elementary level. This is particularly true for all the four areas other than physical fitness.

In the present day elementary school curriculum the physical fitness demensions are covered under two subject areas; "Environmental Studies" and "Health and Physical Education" (HPE). The problem emerges as to who teaches about "health" and what are the strategies to be followed. In single teacher schools this problem is solved because the same teacher deals with both subjects, but in schools with separate teachers in the two areas the overlapping domains needs to be discussed between teachers so as to avoid confusion.

MINIMUM LEVELS OF LEARNING IN HEALTH

As mentioned above health education is being imparted under two different subjects. The minimal levels of learning in Environmental studies have been worked out (see Annexure for Health components). A similar exercise is not available for the health component in "health and physical education". However if one books at the prescribed syllabus one finds a lot of overlap in content between the subjects.

ACTIVITY 1: Discuss whether the minimal levels prescribed under EE is also the minimal levels hoped to be achieved under HPE or whether additional competencies can be achieved.

ACTIVITY 2: Given that the minimum level is to be attained by all students identify activities which can be undertaken by the HPE teacher to achieve minimum levels as prescribed in EE minimal levels.

Contd...5..

ROLE OF TEACHER:

The health of the students are partially the responsibility of the teacher. As such the teacher must be able to judge whether a student is ' healthy ' according to the modern concept. For this the teacher has to evaluate from time to time the status of health of the student. Such health cards may cover areas such as growth and development, habits, illnesses, disabilities immunigation and behaviour. Keeping such records will help is monitoring the health status of the pupil.

ACTIVITY 3:

Develop a Health card for keeping individual records of students.

Statement of MLLs in Environmental Studies

Areas	Class I	Class II	Class III	Class IV	Class V
1. The pupil acquires awareness about one's well-being in the context of social and natural environment.	1.1. Our body and its cleanliness	1.2 Our food and shelter	1.3. Rules of saftey and orderly behaviour	1.4. Precautions against common accidents	1.5. Care against persons of bad habits and bad character
	1.1.1. Identifies the main parts of the body	1.2.1. Understands the need of food for health	1.3.1. Appreciates the need for orderly behaviour in home, school and public places	1.4.1. Identifies common situations leading to accident in his environment	1.5.1 Knows about common crimes in his locality, e.g. theft, decoity, violence and trespass
	1.1.2. Understands the importance of keeping them clean	1.2.2. Sees relationship between unclean food and water, and diseases	1.3.2. States in queue and waits for his turn	1.4.2. Sees relationships between accidents and lack of precaution	1.5.2. Sees relationship between crimes and bad habits and had behaviour, e.g. alcoholism, bullying, lack of consideration for others, etc.
1.1.3. Recognizes the need of clothes and seasonal variation in them (wherever applies)	1.2.3. Appreciates why the house is an essential need	1.3.3. Interprets important road symbols (as applicable)	1.4.3. Knows some basic measures to be taken following an accident		1.5.3. Suggests possible safeguards, as also measures to prevent crimes.

reas	ClassI	Class II	Class III	Class IV	Clsss V
. The pupil nderstands he factors ontributing o the pre- ervation of ood health			7.3. Functions and care of different parts of body	7.4. Nutrition,pollution and cleanliness	7.5. Prevention of diseases and keeping fitness
			7.3.1.Understands important functions of human body, such as digestion, respiration, blood circulation, etc.	7.4.1. Classifies food stuffs accordings to nutritive functions and understands the need of balanced diet	7.5.1. Knows about major sources of diseases
			7.3.2.Knows how to take proper care of such parts of the body as eyes, hair and teeth	7.4.2.Knows how food and drinking water get contaminated (Extension of 10.3.14)	7.5.2. Understands the usefulness of vaccination to prevent communicable diseases
				7.4.3.Conducts simple experiments to purify drinking water	7.5.3.Suggests ways of collecting and disposing of garbage
				7.4.4. Relates unhygienic conditions with the spread of diseases	7.5.4. Applies simple first-aid skills
					7.5.5. Reads thermometer to know body temperature
					7.5.6. Participates in child-to-child programme to save life of ailing infants, e.g. from diarrhoea

MINIMUM LEVEL OF LEARNING IN HEALTH AND PHYSICAL EDUCATION

Area	Class I
1. Basic body positions & Movements	1.1.1. to stand in correct position with straight back, eyes forward and weight distributed on both legs.
	1.1.2. to sit in correct position with straight back
	1.1.3. to bend forward from thewaist keeping the knees straight and feet apart
	1.1.4. to bend sideways (left and right) keeping feet apart
	1.1.5. to walk correctly by placing heel first and with toe projecting straight forward.
2. Rhythmic activities	2.1.1. to perform actions related to poem/song recited by the teacher
3. Imitations, story plays & mimetics.	4.1.1. to imitate the action of two animals such as monkey, cat, elephant, birds etc.
	4.1.2. to imitate the gait of any three animals such as elephant, frog, monkey, dog etc.
4. Minor & Lead up games	5.1.1. to participate actively in two small-area games
5. Simple combatives	7.1.1. to pull and push using hands

* Identified by participants in Group Work.

Area	Class II
1. Basic body positions & Movements	1.2.1. to stand in a circle made on the floor.
	1.2.2. to form a circle with 5 to 8 students by joining hands.
	1.2.3. to stand at attention, with heels together and hands on side
	1.2.4. to stand at ease by keeping feet apart, hands at the back.
	1.2.5. to understand and obey commands "attention" and stand-at-ease".
	1.2.6. to walk straight using a guide line with either left or right foot on the line
	1.2.7. to walk in a single file (5 or 6 students one behind the other)
	1.2.8. to run correctly on toes.
	1.2.9. to bend backwards by placing hands on hip.
2. Rhythmic activities	2.2.1. to clap to rhythm with drum.beat or count
	2.2.2. to keep time by stamping with the foot to the rhythm of drum beat or count.
	2.2.3. to sing and perform rhythmic action for one song.
3. Imitations, story palys & mimetics.	4.2.1. to imitate sound and movement of objects such as car, train, machine etc.
	4.2.2. to say the words and perform actions to two poems/stories
4. Minor & Lead up games	5.2.1. to participate activety in two more small-area games.
5. Simple combatives	7.2.1. to push and pull back to back.
	7.2.2. to pull stick or hands with partner.

Area		Class III
1. Basic body positions & Movements	1.3.1.	walk for a distanceof 10 m. keeping an object such as book on head
	1.3.2.	to walk in two files with 5 to 6 students in each file.
	1.3.3.	to run between 2 lines for 50m.
	1.3.4.	to run in a circle
	1.3.5.	to perform three free arm exercises - raising arms forward, sideways and upward
	1.3.6.	to perform three free arm exercises involving bending forward backward and sideways
	1.3.7.	to throw or catch a ball or ring in pairs
	1.3.8.	catch a ball thrown by the leader standing in the centre of a semicircle and throw it back to the leader
2. Rhythmic activities	2.3.1.	to perform rhythmic action of two songs.
3. Marching	3.3.1.	to do mark time march standing at one position without moving arms
	3.3.2.	to understand and respond to commands "March" Halt" and "Right turn" left turn"
	3.3.3.	to perform right turn and left turn from attention position
4. Minor & Lead up games	5.3.1.	to participate actively two more minor games
5. Gymnastics	6.3.1.	to balance on one (foot), repeat with other foot.
6. Yoga	9.3.1.	to perform any two of the following asanas Sukhasana Padmasana Tadasana Vajrasana

Area	Class IV
1. Basic body positions & Movements	1.4.1. to stand in a single line according to height 1.4.2. to number from the right (1-2-3-4........)continuously 1.4.3. to number in twos from the right (1-2-1-2.........) 1.4.4. to form class in two rows by either no 1's or no 2s moving forward 2 or 3 steps 1.4.5. to perform two exercises each for neck, arms, trunk and legs.
2. Rhythmic activities	2.4.1. to perform one folk dance
3. Marching	3.4.1. to do about turn from attention 3.4.2. to march in a single file keeping one arm distance 3.4.3. to understand and respond to commands - " Quick march " "About turn"
4. Minor & Lead up games	4.4.1. to participate actively in two more minor games 4.4.2. to play circle Kho
5. Gymnastics	5.4.1. to balance on one leg with body parallel to the ground and hands on the side of the body. Repeat with other foot. 5.4.2. to perform head stand 5.4.3. to roll forward once 5.4.4. to wheel on hands and feet (cartwheel) once.
6. Yoga	6.4.1. to perform the remaing two asanas from class III and one more from the following - Chakrasana - Paschimotanasana - Bhujanga asana

Area		Class V
1. Basic body positions & Movements	1.5.1.	to perform four combination exercises involving arms and legs.
	1.5.2.	to perform drill with any one apparatus (hoop, ball, ribbon, hanky, dumbell sticks)
2. Rhythmic activities	2.5.1.	to perform one more folk dance
3. Marching	3.5.1.	to perform right and left wheel while marching in single file.
	3.5.2.	to march in two rows
	3.5.3.	to understand and follow the commands, right wheel, left wheel, quick march
4. Minor & Lead up games	4.5.1.	to participate actively in two more minor games.
	4.5.2.	to play Kabaddi.
5. Gymnastics	5.5.1.	to perform Hand Stand with support.
6. Track & Field	6.5.1.	to run 50 mtrs.
	6.5.2.	to perform standing broad jump
	6.5.3.	to throw cricket ball for a distance of 10 mtrs.
7. Yoga	7.5.1.	to perform the remaing two asanas from class IV and one from the following Dhanurasana Vrikshasana Sarvangasana Shavasana

MENTAL HEALTH AND PHYSICAL EDUCATION CURRICULUM IN SCHOOLS

Module HPE No. 12

PROF. K.C.PANDA

The common slogan "a sound body and a sound mind" runs quite contrary to the much prevalent parent-teacher instruction "Don't play too much, your studies are going to be affected". Lack of understanding of the dynamic relationship that exists between play and mental health, body and mind, physical education curriculum and academic curriculum has often been the source of concern and the danger of neglecting one for the other. In the recent curricular reform therefore, Health and Physical education has been given a very significant place from early child hood education to secondary education and the objectives of each has been carefully framed and stated in the curriculum framework of Elementary and Secondary schools published by NCERT.

Let us look at what Mental Health means and then see how physical education curriculum can contribute to its development and maintenance. Mental Health simply means adjustment of individuals to themselves and to the world at large e.g., greatest success in adjustment according to capability characterised by minimum of tension and friction. The mentally healthy child reflects self acceptance, a balance between instincts and conscience, less of conflict, and more of tolerance, displays realistic perception of reality and mastery of environment, possesses ability to love others, competent in maintaining human relations, adapation to current circumstances and willingness to use problem solving approaches.

How do children develop these qualities ? What is the role of teachers ? It is stated that teachers cannot presceibe tranquilisers or antedepresant drugs but they can administer the pain relieving aspirin of acceptance, time to listen and tolerance for deviant conduct.

To make it more operational teachers must emphasize the physical, mental and emotional aspect of personality. They should ensure that the child gets alongwith himself and so also with others in the process of becoming a human being. They should demonstrate involvement in the whole process of developing, mental healthy among children and understand its significance. This responsibility on the part of teachers is a must.

In this day to-day interaction with children teachers are expected to have faith in the freedom of children. Children no matter how young they are possess a personality or identity of their own which demands respects from others. Hence, teachers must respect the personality of the growing child instead of hurting or insulting them.

They should encourage them to develop attitudes of cooperation, participation, regard for authority. While so doing teachers have to understand that the children have developed a feeling of security. They should be allowed to explore and experience and satisfy their aniosity than directed and advised. By that the need to be independent will grow.

More specifically, it has been found that the causes of maladjustment are insecurity, inferiority, guilt, conflict, labelling, with-drawal from social group, truancy. Hence, it is for teachers to safeguard that they do not display any positive discrimination. They need to out grow their past. They respect differences among children. They listen to children and provide cathartic treatment. Thereby they enhance the Ego of their children in schools.

The next question is, if harmonious development of body, mind and spirit are essential ingredients of mental health how does physical education contribute to such an objective ? It is said that physical education emphasizes, the health of the learners and community i.e. ensuing emotional and mental health of children is inbuilt in the objective of physical education which apparently creates an impression that it promotes only physical health. One has therefore, to explicate the role physical education has to play.

What kind of learning takesplace in physical education It is obvious that much can be learned about the body itself. They do learn the relationship of this equipment to optimum physical functioning and to happiness and well being.

A type of learning that takes place in physical education concerns his relationship with youngsters. The physical education class offers a wonderful opportunity to instil such qualities as courage initiative, leadership, followership, honesty, and dependability. The give and take in the physical education class helps a child to appreciate better the individual abilities of others and the value of playing according to rules. Physical education is not just an education of the physical body. It is not mentally exercising, seveating, putting, building strength and stamina. It is uses the body as a veichle through which knowledge is gained, attitudes are developed and desirable social qualities and devision making habits are acquired. The physical education is education through and by means of physical acativity.

It is a way or means and not an end itself. The objectives of physical education are far elastic and comprehensive. This is reflected in a precise definition of the concept of physical education.

"Physical education, an integral part of the total education process is a field of endeavour which has as its aim the development of physically, mentally, emotionally and socially fit individuals through the medium of physical acativities that have been selected with a view to realising the outcomes".

(Bucher, C.A. (1968) Foundations of physical education. The C.V. Mosly Co.) Physical education can therefore play a very important role in contributing to each of phase of child growth and development. Like education for all, there needs to be a slogan "education through play" which was being emphasized from the period of Froebel or in the words of Professor Thomas Briggs of Columbis University, "let's help people to do better those things they are going to do any way". Children are going to play whether parents and teachers want them or not. Therefore, physical education teachers must change their rigid attitude forskill development and kill two birds at a time. Physical skill and mental health.

The time has changed. There is no need to be guided by asceticism, scholasticism, and puritanism of the 18th century. One should go by what looks the English Philosopher said "A sound mind in a sound body". Outstanding educationist like Pestalozzi, the Swiss educator; Froebel, the German educator; Dewey, the American Philosopher, and Rousseau the French philosopher, emphasized the educational value of play and physical education as an educational device.

But much of this significance is lost partly because of puritanic attitudes of parents and indifference of physical education teachers. Play has therefore becomes work leading to drudgery. Hence, a medium of splitting the mental health of pupils and making them asthenic rather than athletic.

Since physical education activities have great attraction for children and youth and since it is possible to develop desirable social traits under proper guidance. Physical Education should realise its responsibility: building positive health (physical and mental) - the necessity of a democratic society; the family and community health; human relations; workmanship; humanitarianism; and democratic living.

A physical education programme will have a spread of effect to teachers if teachers participate in the whole process of becoming from being. It will reduce worries and stress, feeling of burnout, arrogance and domination over conscientiousness mingled with laxity among porfessionals and thus contribute to a healthy living and transaction of curriculum.

* * *